FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

Valleyfield, Que., fire-police combat conflagration complicated by weather, wind, wires and facilities shortage—See Page 220

Integrated Fire-Police Force Fights Costly Conflagration

Thru the Architect's Eyes

Panic Blamed for Deaths of 15 in New Haven Holocaust

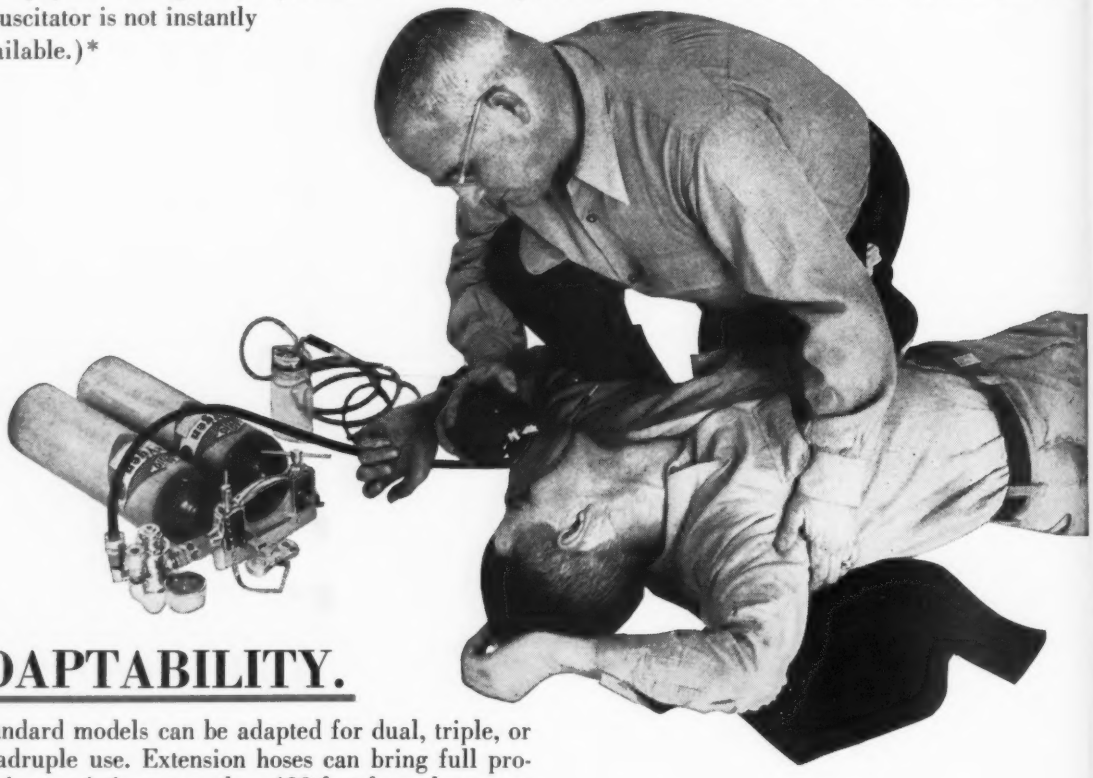
MARCH 1957

These Advantages Add Up!

SIMPLICITY. In breathing emergencies speed saves lives, and simplicity means speed. Emersons have it.

SAFETY. No instance has ever been recorded of injury from the gentle pressures used. Since approval by the American Medical Association in 1942 thousands of cases have been treated, all safely, including adults, children, and even newborn babies. An important safety factor is the suction phase, which gives vital aid to the circulation by helping the heart to fill normally.*

EFFECTIVENESS. Extensive medical research has found immediate positive-and-negative resuscitation to be the most effective life-saving measure in asphyxial emergencies. (Manual artificial respiration, however, should be used as first aid, if a resuscitator is not instantly available.)*



ADAPTABILITY.

Standard models can be adapted for dual, triple, or quadruple use. Extension hoses can bring full protection to victims more than 400 feet from the parent machine. Manifolds are available for Civil Defense protection.

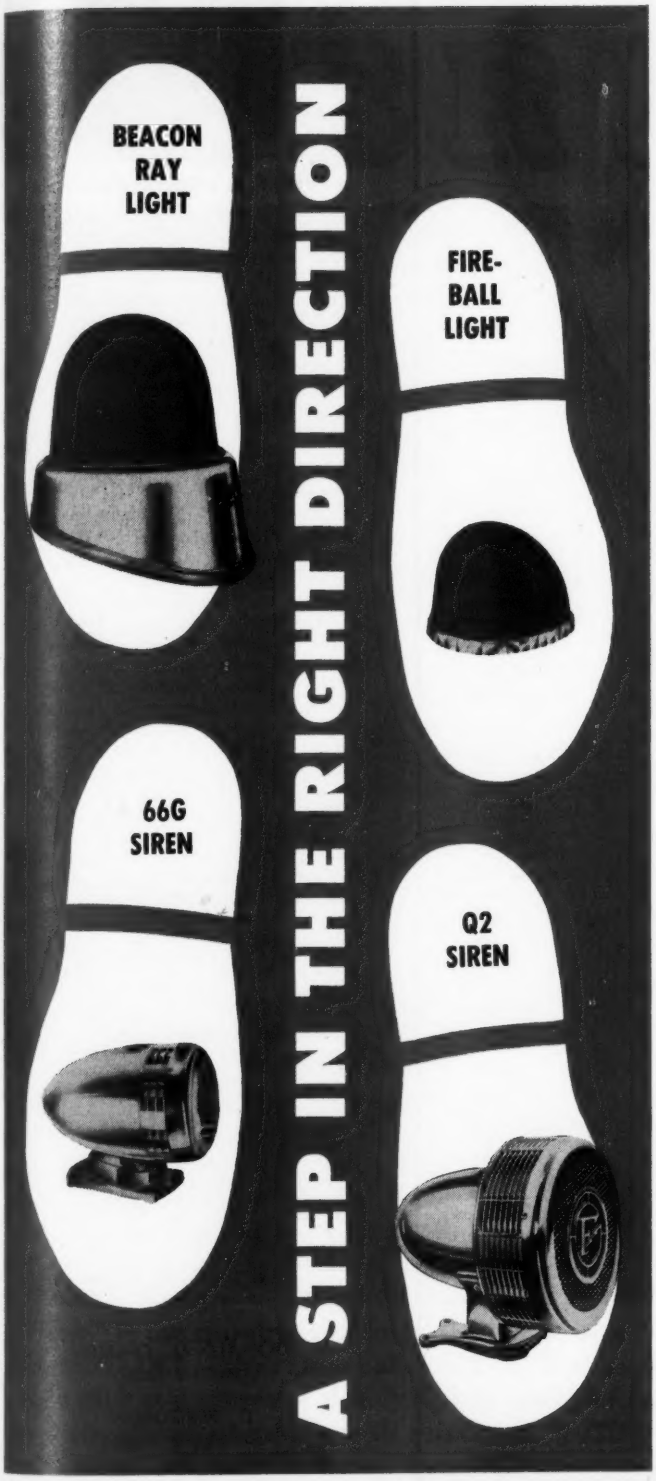
Write for circular on the newest models.
**Write for free bulletins "Medical Reference on Resuscitation" and "A New Manual Method of Artificial Respiration."*

EMERSON RESUSCITATORS

Can Help You Save Lives

J. H. EMERSON COMPANY

82 COTTAGE PARK AVENUE, CAMBRIDGE 40 MASSACHUSETTS



If your department is using FEDERAL Beacon Ray lights you know there just isn't any substitute.

The Beacon Ray is *THE* light for fire apparatus.

If you are one of those less fortunate departments who, because of budget limits or otherwise, has had to suffer along with less satisfying visual signals, the Fire-Ball can be a step to *greater safety and satisfaction!*

The Fire-Ball is *not* a substitute for the Beacon Ray—and it won't do as much for you. The Fire-Ball with its brilliant 360° rotating beam will do so much more for you than other ordinary flashing or warning lights that your responsibility and safety records should proportionately improve! If you can't have Beacon Ray's you probably *can* have the new Fire-Ball and you won't go wrong if you equip your department with them. Put the new Fire-Ball and a FEDERAL siren on *existing* equipment and be sure to specify the Beacon Ray and Class Q coaster sirens on all *new* apparatus.

Write for literature today.

FEDERAL SIGN and SIGNAL

Corporation

2782 S. State St., Chicago 19, Ill.

FIRE ENGINEERING

VOL. 110 MARCH, 1957 NO. 3

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With F. E.'s Correspondents

Clarence Meek is one of those lucky souls who have been able to combine vocation with avocation. He started as a professional fireman over 40 years ago, and was snatched from that job by the late Charles H. Fox of Ahrens-Fox fame, to become New York manager of that company.

With the change in that firm, he came East where he rubbed elbows with fire fighters in all ranks until he retired a few years back. During this time he became widely known for his historic knowledge of the fireman and his "tools."

Brother Meek's enthusiasm for documenting the world's largest fire department resulted in his being made honorary captain, then battalion chief of that organization, with the unofficial title also, of "historian."

It is doubtful if there exists anywhere as comprehensive a collection of printed matter on fire protection and prevention as has been amassed largely through his efforts in the New York Fire Department Library, located in the Fire College, Long Island City, presently in command of Deputy Chief in Charge Otto H. Kochenhauer.

We know Clarence Meek has been subscriber, avid reader of, and contributor to FIRE ENGINEERING for over 40 years. And he is still going strong!

The Publishers

FIRE ENGINEERING —A CONSOLIDATION OF FIRE AND WATER ENGINEERING, THE FIRE ENGINEER, FIRE PROTECTION AND FIRE SERVICE

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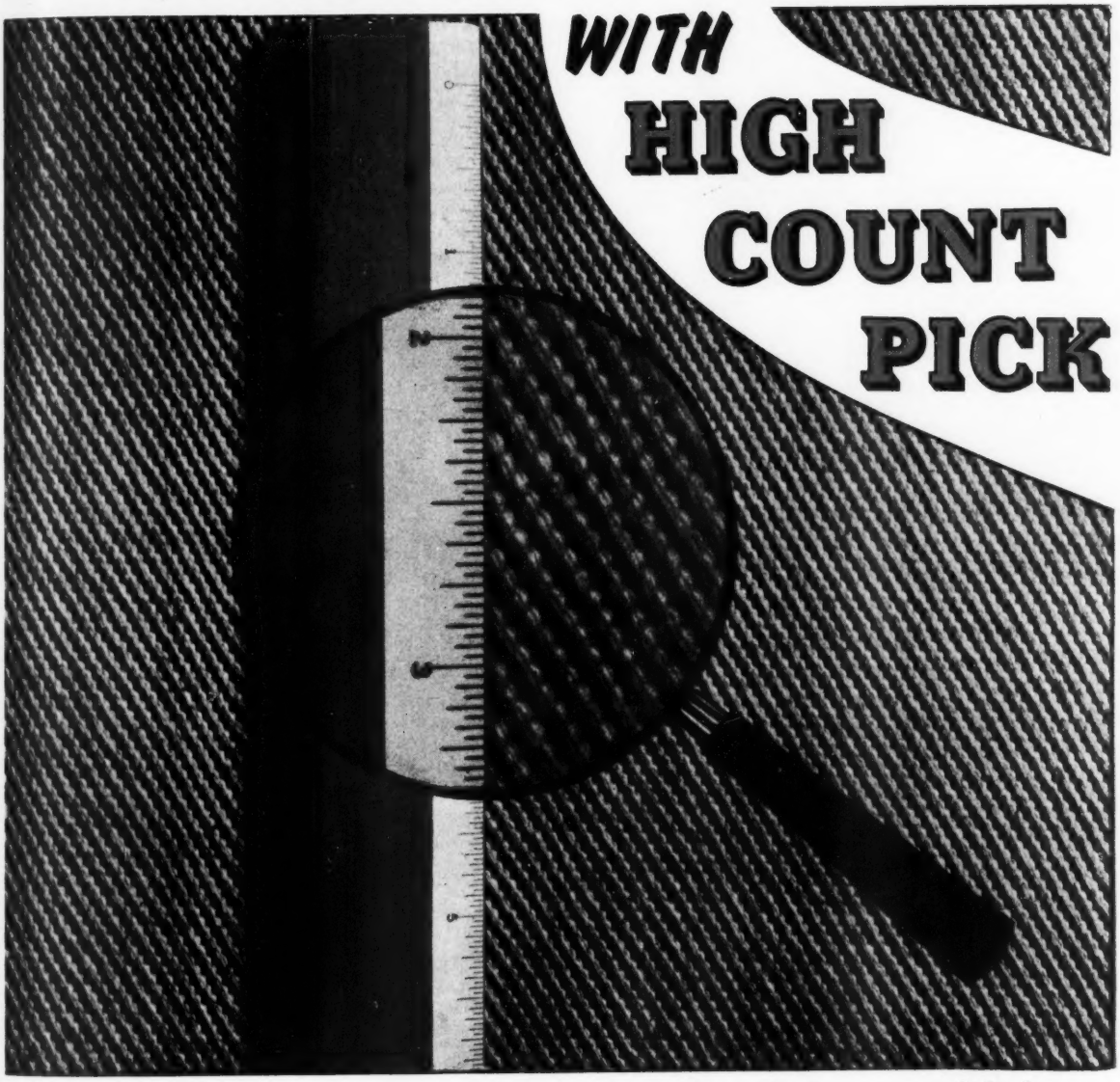
FABRILON

WITH HIGH COUNT PICK



"*Pick*" is the number per inch of filler strands, or those which go *around* the hose. FABRILON has the remarkably high pick count of 12 to 14 per inch. In FABRILON, high pick count means *closely woven twill jackets* which *resist abrasion and snagging* and slide over obstacles with *minimum surface friction.* It also means *smooth texture, ease of handling, high burst* and resistance to *pressure shock* or *water hammer.*

FABRIC FIRE HOSE COMPANY

THE ONLY EXCLUSIVE MANUFACTURER OF FIRE HOSE IN AMERICA

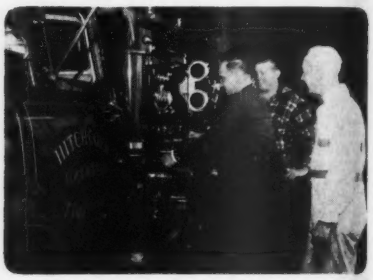
SANDY HOOK CONNECTICUT

A FIRE CHIEF GOES TO SCHOOL

Typical of the thousands of fire chiefs and crewmen that each year attend the John Bean Fire School, Chief A. G. Terrabonne of Hitchcock, Texas is seen here as he completes his course with a group of fellow firemen from all parts of the country. Chief Terrabonne knows that keeping abreast of modern fire-fighting methods, like the John Bean High-Pressure Fog System, is the surest way to guarantee his community the safety and protection with which he is entrusted. That's why this free training by John Bean fire-fighting experts is available the year 'round to you and your men as a part of the regular service that goes with every John Bean truck. Put yourself in Chief Terrabonne's place as he is seen below in some of the many stages of his own training.

ADVANCED FEATURES of the John Bean Firefighters are first learned in the classroom, where Chief Terrabonne and his group study the proper function and operation of the equipment they will soon be using.

FIRST-HAND EXPERIENCE is an important part of each fireman's training at John Bean. Here Chief Terrabonne learns the proper care and maintenance of his new equipment by actually doing the work himself under expert supervision.

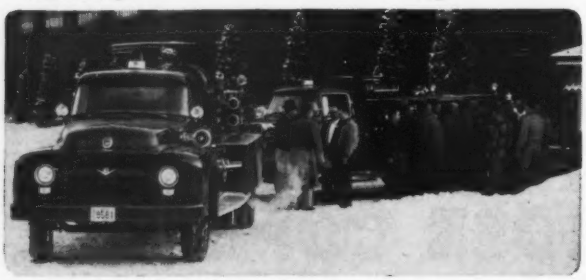


GETTING THE FEEL OF IT! Following a day in the classroom, Chief Terrabonne and one of his crewmen, Cecil Cruse, receive individual training from factory specialists on the operation of their own equipment.

LIVE FIRE FIGHTING of both Class 1 and Class 2 fires is practiced by each student at the John Bean proving grounds. Here, Chief Terrabonne quickly knocks out a building fire with John Bean High-Pressure Fog.

BURNING OIL TANK . . . . one of the most difficult of all fires to combat . . . is easily and quickly put out by members of Chief Terrabonne's group with the triple action of John Bean High-Pressure Fog.

18 GALLONS OF WATER—18 SECONDS LATER . . . and the raging fire in this 18 x 36 foot oil pit is completely extinguished! Dramatic proof of what John Bean High-Pressure Fog can do when the going is rough.



BETTER EQUIPPED — BETTER TRAINED! As Chief Terrabonne and Cecil Cruse take delivery of their new truck and return to Hitchcock, Texas, the people there can well be thankful. For with them they bring the confidence and skill to give their community the hard-hitting, split-second protection for which John Bean is known the world over.

JOHN fmc FOOD MACHINERY AND CHEMICAL CORPORATION **BEAN**®

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A DIVISION OF
FOOD MACHINERY and CHEMICAL CORPORATION

B.F.Goodrich

B.F.Goodrich hose handles easier—even in cold, wet weather

IF you've ever wrestled with a heavy, waterlogged fire hose, or had hose stick to the pavement in freezing weather, you'll appreciate Superseal-protected B.F.Goodrich hose.

The Superseal treatment, developed by B.F.Goodrich, gives the hose jacket maximum protection against moisture absorption and freezing. Unlike ordinary treatments that just coat the surface of the hose, the exclusive B.F. Goodrich Superseal solution penetrates every cord in both the inner and outer jacket, prepares the hose for all sorts of weather.

What's more, this special chemical protection also provides 10 times more resistance to mildew attack and rotting than any other treated hose, and increases its resistance to fire. And most important, the B.F.Goodrich Superseal treatment costs no more than ordinary hose treatments.

Treated fire hose is important in the Chicago suburb of Evergreen Park, where the firemen pictured above are called out on many cold, wet days. For the past 20 years they've used B.F. Goodrich hose because they are convinced it lasts longer. Other advantages of B.F.Goodrich Fire King hose, according to Chief Leroy Howatt (second from left), are its flexibility, light weight and ability to stand high pressure.

For a hose that will last longer, specify B.F.Goodrich hose with Superseal protection. Your B.F.Goodrich fire hose distributor can tell you more about it, or write *B.F.Goodrich Industrial Products Co., Dept. M-898, Akron 18, Ohio.*

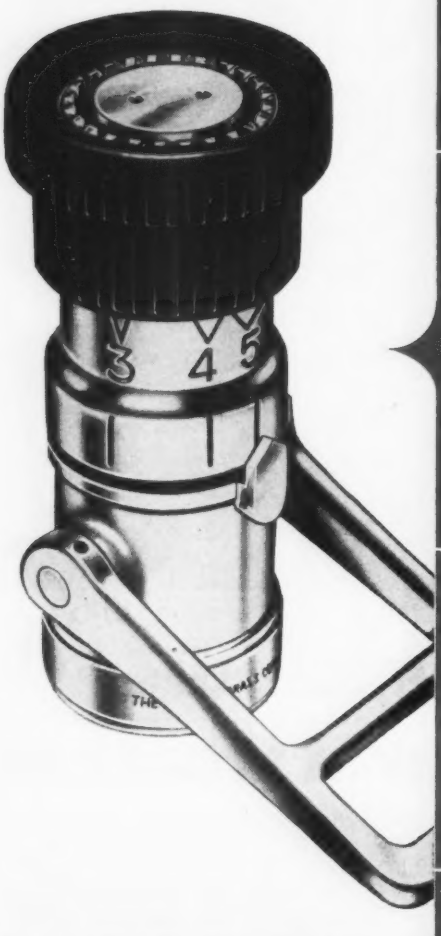
B.F.Goodrich

INDUSTRIAL PRODUCTS

5 REASONS

WHY THE NEW WOOSTER VARI-A-FOG

FIGHTS FIRES BETTER ON ALL SIZES OF HOSE



WOOSTER BRASS

DIVISION OF THE FYR-FYTER CO.
WOOSTER, OHIO

1

FLOW RATED

When purchasing Vari-A-Fog Nozzles, you can specify the G.P.M. discharge to suit your water availability and hose lay practice. For example 125, 100 and 75 G.P.M. are regularly available in the 1½ size. These ratings are in the 30° fog (#3 position) at 100 lbs. nozzle pressure. A choice of G.P.M. ratings is also available in the ¾", 1" and 2½" sizes.

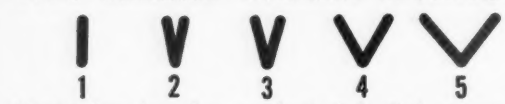
2

PROTECTIVE BUMPER

On Vari-A-Fog Nozzles the protective, non-slip bumper really protects the end of the nozzle from impact damage—assuring long, trouble-free service.

3

FIVE MARKED STREAM SETTINGS

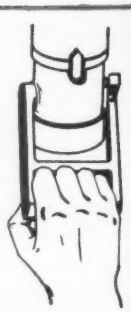


Vari-A-Fog has five marked click dial stream settings which give you a complete range of stream choices. Dial to one of the various stream choices and pull the shut-off handle. That's all that's necessary to instruct your men. The fog pattern is plainly indicated above each dial number. Numbers are easier to remember and use during a fire than the degrees or angle of the fog.

4

LARGE, ROOMY SHUT-OFF VALVE HANDLE

Rugged for hard abuse. Streamlined so it won't catch. Acts as an added protection to nozzle when dropped. Gives a man something he can really grip when used with gloves in cold winter weather. Won't slip or stick.



5

EASY TO SERVICE VALVE

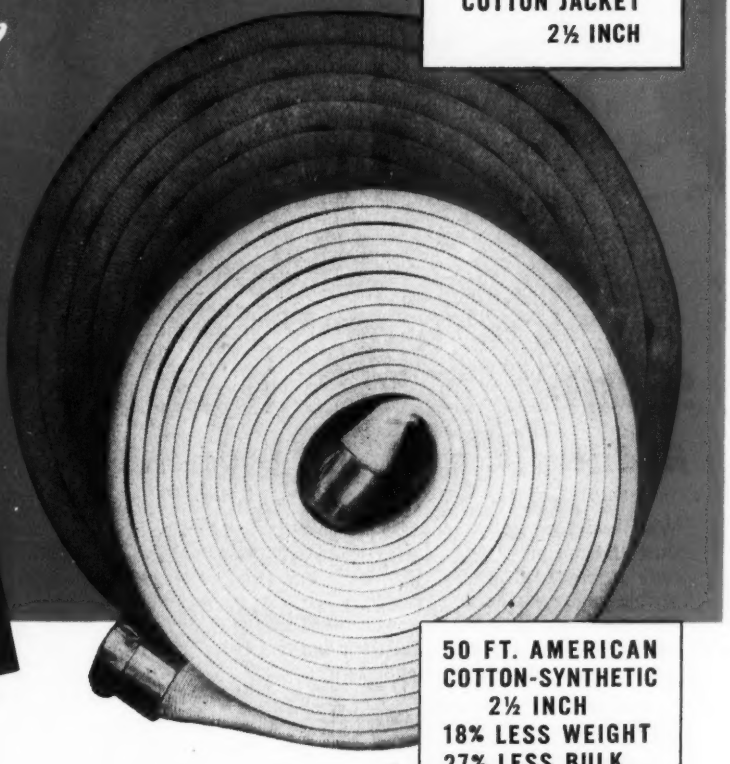
Just loosen the small set screw in base of nozzle. Use strap wrench on base and it will screw out. Removable seal is in base. Floating Ball drops out and a second seal, which gives you a double seal protection, is removed by slipping out the handle trunions. The new seals are available at reasonable cost.

A GREAT HOSE PROVED BY YEARS OF FIELD TESTING

THE *American*

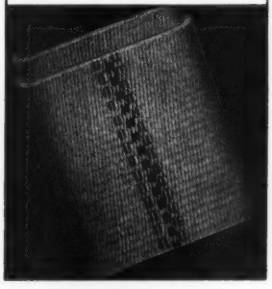
COTTON-SYNTHETIC JACKET *Hose*

400 AND 600 LB. TEST



50 FT. ORDINARY COTTON JACKET 2½ INCH

50 FT. AMERICAN COTTON-SYNTHETIC 2½ INCH
18% LESS WEIGHT
27% LESS BULK
50% STRONGER



Try this great new hose. See for yourself how its long-lived cotton-synthetic jacket and laminated natural rubber lining make for easy handling, while saving space and weight. Here's the story —

EASIER TO HANDLE—50′ of this AMERICAN Cotton-Synthetic Hose weighs 18% less than 50′ of average cotton jacket hose . . . enables firemen to move more hose faster. Also lies flatter, coils better, stays flexible wet or dry.

SAVES SPACE—AMERICAN Cotton-Synthetic enables you to carry at least 25% more hose.

STRONGER—High strength-to-weight ratio remains same wet or dry . . . tests prove it 50% stronger than regular hose.

Why lug heavy, bulky, hard-to-handle hose?
Order AMERICAN Cotton-Synthetic Jacket Hose—available in 400 and 600-lb. test—from your dealer NOW. . . or write us for details.

THE *American* RUBBER MANUFACTURING CO.

AR-26

MAKE SURE; Look for Identifying Stripe and Test Report

AMERICAN Cotton-Synthetic Jacket Hose has red, white, and blue identifying stripe. Each 50′ length is factory proof tested with couplings on, for strength, stretch, and twist. Test report accompanies hose.

Factory & General Offices: • 1145 Park Avenue • Oakland 8, California • Phone OLympic 2-0800

MIDWESTERN

Safety Clothing

for Men of ACTION!

The Original MIDWESTERN

STRIPED SAFETY COAT

Reduces Accidents—Saves Lives

When working under hazardous conditions in smoke, fog, dust and darkness, you deserve the safety protection found *only* in the Midwestern Striped Safety Coat. The highly visible yellow stripes are *rubberized as part of the material* . . . not glued, painted or sewed on. Tests show that Midwestern yellow stripes retain their natural color and have the same durability as the black fabric.

There are many imitations but no substitute for the superior quality, design, fabric texture and outstanding safety features of MIDWESTERN SAFETY CLOTHING FOR FIREMEN!

MIDWESTERN COMBINATION SAFETY SUIT

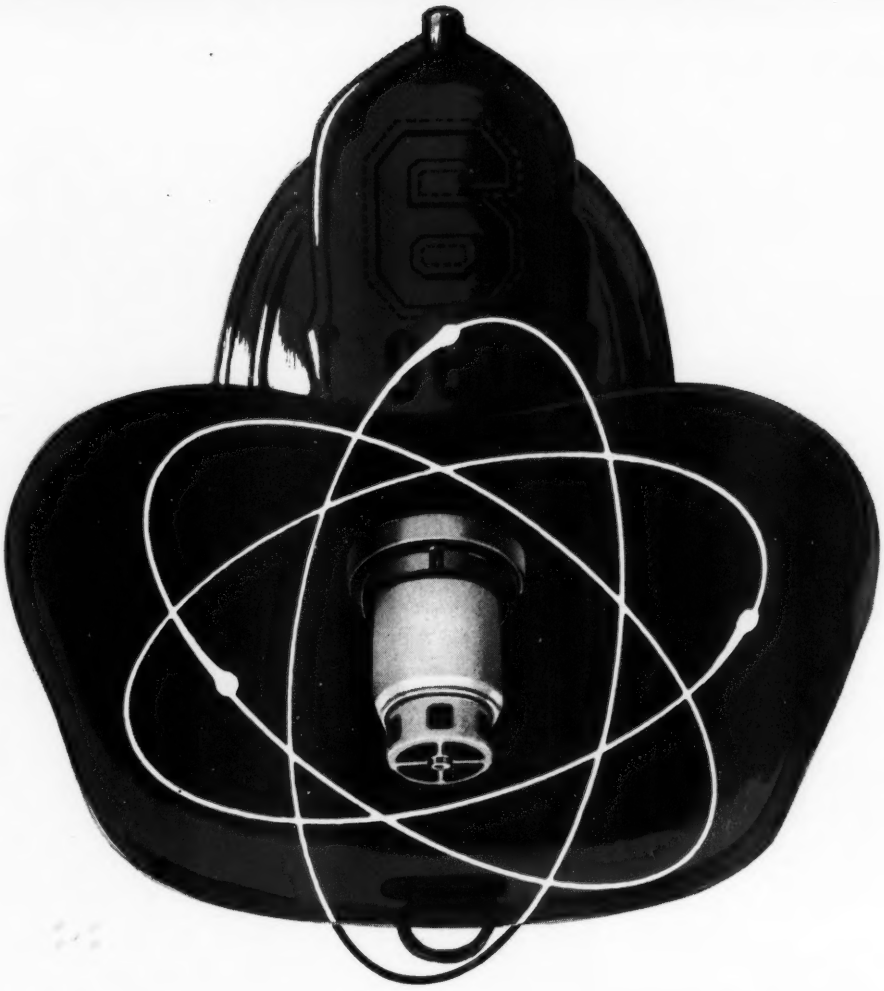
The Midwestern Rubberized Coat and Bunker Pants combination make it easy for firemen to keep both warm and dry even in the most severe weather. Close fitting collar and elastic inner sleeve keep out sparks and water. Pants have double-stitched seams, reinforcing rivets at points of strain. Both garments available with detachable wool linings.

For complete information on our full line of safety clothing for firemen, see your Midwestern dealer. A letter to the factory will also bring you literature and materials for your inspection.

NONE GENUINE WITHOUT THIS TRADE MARK

MIDWESTERN SAFETY MFG. CO. Mackinaw, Illinois

Manufacturers of the Famous **MACKINAW Safety Coats**



Nuclear energy takes over the fire watch...

PYR-A-LARM Today's fire departments are made up of highly-trained men with powerful, modern equipment at their disposal . . . but they must be warned of fire in time to put that equipment to most effective use! Nuclear-powered PYR-A-LARM gives them those vital, extra minutes because *it reacts to the products of combustion* . . . flashes the alarm before dangerous temperatures build up . . . before smoke or flames develop . . . long before a thermally-sensitive device would respond!

At this moment, PYR-A-LARM is on guard in more than one hundred of the largest firms in the country. To discover how easily and economically this product of modern science can take over the fire watch for you . . . and what it can mean in terms of reduced fire loss and lower insurance premiums . . . just fill out the coupon. We shall gladly arrange a demonstration in your office, or send full information. *Approved by Underwriters' Laboratories, Inc. and Factory Mutual Laboratories.*

PyroTronics
A DIVISION OF BAKER INDUSTRIES, INC.

NUCLEAR FIRE DETECTION AND ALARM SYSTEMS

THESE ARE SOME OF THE FIRMS THAT HAVE INSTALLED THE PYR-A-ALARM SYSTEM:

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☐ Kindly send literature describing PYR-A-LARM
☐ Please contact me to arrange a demonstration in my office.

NAME.....

NAME OF PLANT.....

ADDRESS.....

CITY.....STATE.....

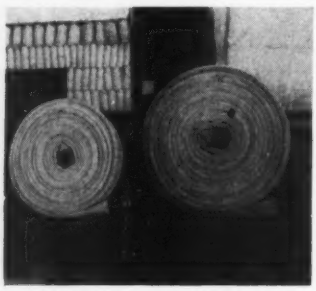
MR. ROBERT C. BYRUS, Director of the University of Maryland Fire Service Extension Dept., reports: "We've had less failure with hose of 'Dacron' and cotton than with conventional hose used under the same rough training-ground conditions."

Hose made with DACRON is lighter and easier to handle . . . gets into action fast

REG. U. S. PAT. OFF.

Fire hose gets extra rough use at the University of Maryland Fire School. Repeated training exercises simulate very severe conditions. That's why it's especially meaningful when the school's director reports, "Our tests show hose made with 'Dacron'* has better durability under these abusive conditions than does conventional hose."

EASIER-TO-CARRY hose made with "Dacron" is preferred for handling where seconds count.



EASIER-TO-COIL hose made with "Dacron" (left) takes up less storage space . . . dries faster than conventional fire hose.

Forward-looking fire departments throughout the country are using hose made with "Dacron" polyester fiber. They like the lightness and flexibility that make for easy handling. They like the speed in getting into action. Speed that lends itself to latest firefighting techniques . . . like those taught at the University of Maryland Fire School.

Du Pont makes "Dacron" yarn and supplies it to hose manufacturers. The combination of the unusual properties of "Dacron" plus hose manufacturers' skill has resulted in a superior type of fire hose. Hose made with Du Pont "Dacron" is produced by all leading fire-hose manufacturers. The next time *you* buy hose, be sure it's made with "Dacron". E. I. du Pont de Nemours & Co. (Inc.), Textile Fibers Dept., Wilmington 98, Delaware.

*"*Dacron" is Du Pont's registered trademark for its polyester fiber.*

DU PONT

REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

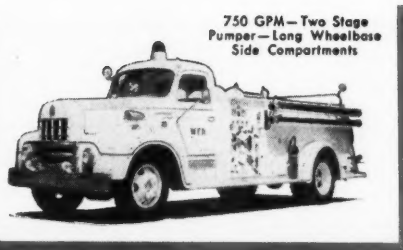
FIRE HOSE MADE WITH "DACRON"—is easier to handle . . . gives improved performance . . . racks more compactly.

BOARDMAN PUMPERS

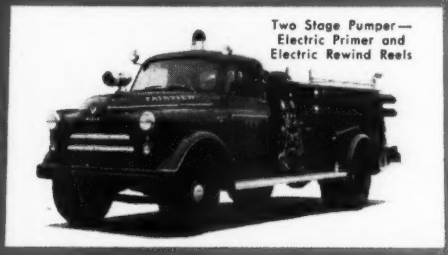
...engineered for YOUR Community!

Your community deserves the best . . . and the best is a Boardman Pumper unit. Designed for any size city, Boardman Pumpers offer the most efficient, economical fire protection it is possible to buy. Equipped with dependable Waterous pumps, these units will give years of trouble-free service. Available with pump capacities of 200, 500, 600, 750 or 1,000 GPM. Your unit can be designed with special booster tanks, compartments, or equipment built to your specifications. Dependable . . . and economical, that's a Boardman Pumper. It can be mounted on the standard chassis of your choice or on a Boardman custom unit. Write today for complete information! Learn how your community can have economical Fire Protection with a Boardman Pumper unit.

They're efficient!
They're attractive!
They're economical!


750 GPM—Two Stage Pumper—Long Wheelbase Side Compartments

Combination High Pressure Fog Piston Pump and 600 GPM Volume Pump


Two Stage Pumper—Electric Primer and Electric Rewind Reels

200 GPM Rural Unit Power Take-off Pump—500 Gal. Tank

750 GPM Custom Pumper 240 H. P. Dual Ignition Waukesha Engine

500 GPM Front Mount Pumper with 500 Gal. Tank

MANUFACTURING DIVISION

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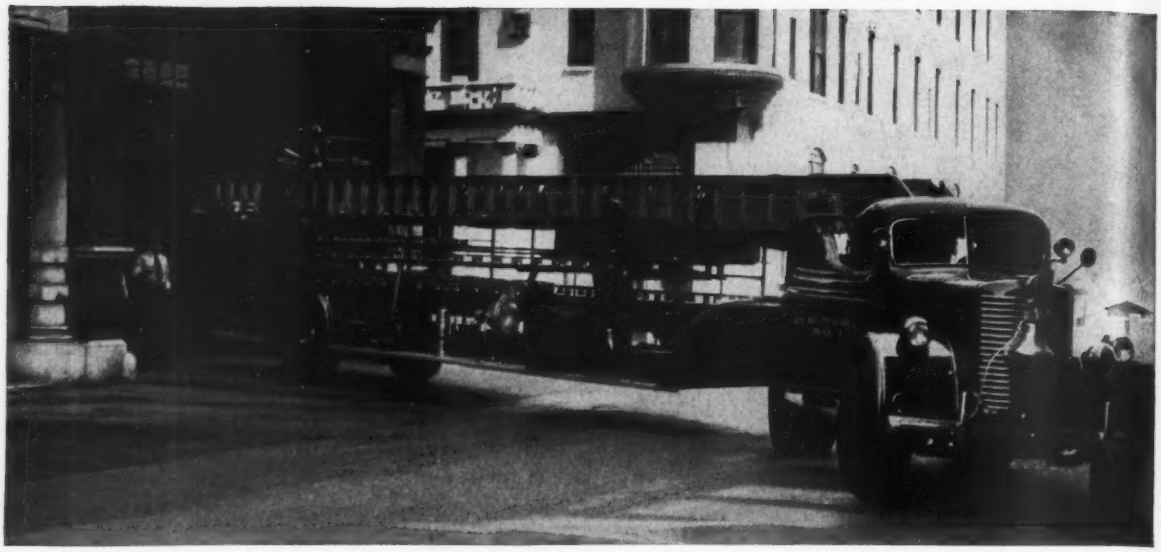
BRANCH OFFICE: TULSA, OKLAHOMA

MANUFACTURER OF DEPENDABLE PUMPERS AND TANKERS



Knoxville selects General Electric Progress Line Two-Way Radio System for fire protection

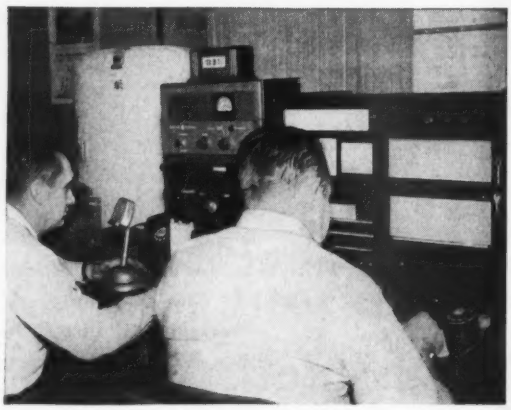
Knoxville, Tennessee, selected General Electric's Progress Line two-way radio for its Fire Department because it offers highest reliability with lowest maintenance cost. High fidelity communication is assured by the controlled reluctance microphones, standard on all Progress Line radios. And only General Electric two-way radios are equipped with 6600 series pre-tested, long-life communication-type tubes.

According to James Swanner, Superintendent of Fire Alarms, solid radio contact can be maintained between his base radio station and that of the Chattanooga Fire Department—114 miles away. He explained that this contact was requested by Civil Defense authorities to tie together fire fighting facilities of the two cities in event of disaster. General Electric Communication Engineers placed the Knoxville base station atop a ridge several hundred feet above surrounding terrain, to assure meeting the CD requirement.

All of Knoxville's fire stations are tied together by the radio system. In addition, 15 engines, a Civil Defense emergency truck, ambulance, and cars of the Chief, Assistant Chief, Superintendent of Fire Alarms, two inspectors, and a mechanic are now smoothly coordinated by two-way radio. This progressive Fire Department has already demonstrated many times how General Electric two-way radio provides improved fire protection for the Knoxville metropolitan area.

* * *

Your use of two-way radio can save money for taxpayers in your city through reduced municipal fire insurance rates for cities with radio-equipped fire departments.

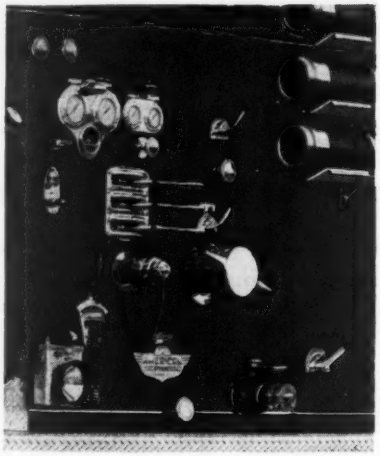


Dispatchers at Knoxville Fire Department Headquarters handle all telephone and two-way radio coordination. All fire station and key vehicles are coordinated via new General Electric two-way radio system.

For Sales and Service...see "Radio Communication Equipment" in your yellow pages. Or, write: General Electric Co., Communication Equipment, Section **C2937**, Electronics Park, Syracuse, N. Y. *In Canada:* C.G.E. Electronics, 181 Landsdowne Avenue, Toronto.

Progress Is Our Most Important Product

GENERAL ELECTRIC



A typical pump panel. One lever gives you instant selection of *Capacity-Pressure-Series* operation—a Duplex Pump feature.

This bulletin will interest
MEN WHO KNOW FIRE PUMPS
(and those who want to know more!)

With clear text, pictures and diagrams, this new bulletin shows *why* the Barton-American Duplex-Multistage Fire Pump is *different* . . . *how* it was engineered to give you *superior* performance . . . and be *easier* and *faster* to operate.

In *one* unit, this midship centrifugal gives you *two* independent pumps with separate shafts and gears. By moving a *single* lever, you can choose any of *three* pressure and volume selections without touching a valve . . . all at engine speeds lower than 37 MPH road speed!

That's just a sample. We repeat—this bulletin will interest you!

WRITE TODAY FOR BULLETIN 8733.

AMERICAN Fire Pump Company

P. O. Box 219 • 803 Main Street Road
Battle Creek, Mich.
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BOOKS

Recognized by the Fire Service as Standard

Every Fire Fighter Should Have

FIRE SERVICE RESCUE MANUAL

by JOE MAHAFFEY

Designed to serve as instructional material for firemen, particularly those attached to rescue squads, it is a goldmine of practical, up-to-date, "how-to-do-it" information covering all phases of fire service activities relating to the saving of human life—first aid, manual and mechanical administration of artificial respiration, transportation of injured, use and care of rescue equipment, and rescue operations in general.

Fire Chiefs who realize the importance of developing their rescue work to top efficiency, as most fire departments are doing these days, would do well to place a copy of this book in the hands of each of their men concerned with this type of work.

62 pages, illustrated **$1.25 Postpaid**

FIRE SERVICE LADDERS

by ROI B. WOOLLEY

This book is without question the most complete, practical and authoritative material ever made available to the fire service on every phase of ladder use, handling and care. It is not only brimful of instructive illustrations but *each operation is fully explained* in easy-to-understand detail. The author is Editor of FIRE ENGINEERING, a former chief and a nationally recognized authority on fire fighting.

Every fire chief, instructor and training school should have this book, and a copy certainly belongs in each fire station.

108 pages, 319 illustrations **$2.00 Postpaid**

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by FRED SHEPPERD, *Editorial Director* of FIRE ENGINEERING

Covers thoroughly and authoritatively the subject of hydraulics as it pertains to every phase of fire-fighting—in simpler, more understandable and more complete form than ever. Not only that, it embraces, as well, many important angles that have never before been covered anywhere. There are several new formulas, originated by Mr. Shepperd, and even old ones have been simplified or revised for greater accuracy.

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by FRED SHEPPERD

Published in response to numerous requests from fire department officers and men working for advancement, this new book embraces the famous "Promotional Study Course" which ran serially in FIRE ENGINEERING and proved to be so tremendously popular. Covering in chapter lessons most of the important phases of fire protection promotional study—mainly in questions and answers form—all of it is in the concise style generally used and preferred by civil service examiners.

To fire chiefs and other officials responsible for preparing examinations, this book will be found most helpful. And it is a mighty good reason, too, why fire officers and men should find it of inestimable value in studying for advancement.

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"Fire Service Rescue Manual" at $1.25.....☐

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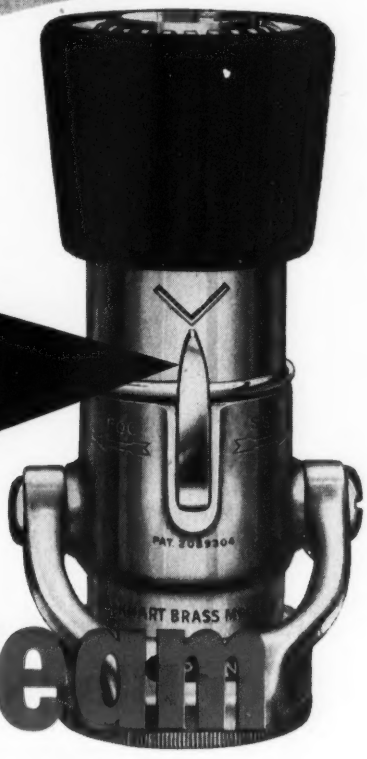


Select-O-Stream

MYSTERY NOZZLE

Developed in 1952... an immediate success, SELECT-O-STREAM proved to be one of the greatest *original* developments in Elkhart's long list of fire fighting "firsts." It's a great compliment to be copied. It's stimulating to know YOU'RE RIGHT and YOU'RE FIRST. Admirably referred to as SOS, Select-O-Stream has been one of the most talked of nozzles in the history of fire fighting. Accept this sincere request: TRY, TEST, COMPARE Select-O-Stream. YOU DECIDE!

★
Set to any stream without looking. You feel those embossed stream indicators.
★
Set to turn on in any position.
★
Locks to the stream you choose.
★
Separate ball type shut-off. (Brass to neoprene seat)
★
Improved grip serves as both grip and bumper.
★
Teeth that chew the fog stream. (When you set the nozzle to fog these teeth go to work.)
★
Solid knurled base—easily attached.
★
NOW AVAILABLE IN THESE SIZES: 1"—1½"—2½".

Write for complete literature

ELKHART BRASS MFG. CO., INC.
ELKHART, INDIANA
Past half a century of fire fighting progress

MAN-MADE BLIZZARD

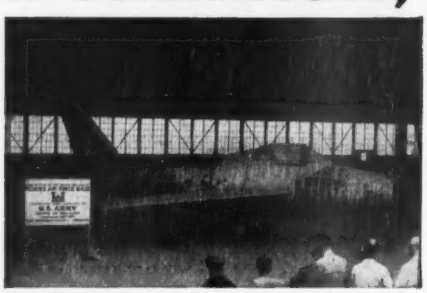
For Blanketing Fire in Chemicals, Gasoline, Oils

These pictures were taken at Robins Air Force Base in Georgia during acceptance tests of a Grinnell ProtectoFoam System. Above, a man slogs through foam to check the spray pattern produced by over 800 nozzles discharging 75,000 gallons of foam per minute.

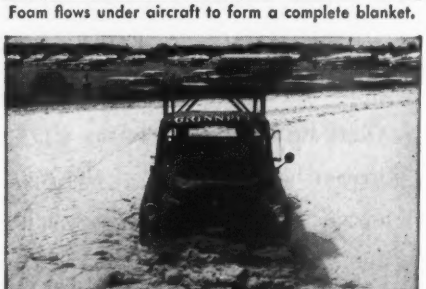
With a ProtectoFoam system, a vapor tight blanket of foam floats on liquids and clings to solids, extinguishing flames and preventing re-ignition. It is particularly effective against fires in gasoline, oils, and chemicals.

The foam, a harmless mixture of water and a protein base foaming agent, is produced mechanically by special Grinnell nozzles. When the foam compound has been used up or shut off, these nozzles then discharge water in the same manner as standard open sprinklers. Once the fire is out, the water discharge may be used to wash down the building and equipment and clean away the foam.

ProtectoFoam is only one of many Grinnell Fire Protection Systems designed for special hazard application. For unbiased advice on your fire protection problems, write to Grinnell Company, Inc., 287 West Exchange Street, Providence, Rhode Island.



Foam flows under aircraft to form a complete blanket.



Truck breasts hub-deep foam blanket outside hangar. Foam will dry out and disintegrate to a powder.

GRINNELL

WHENEVER FIRE PROTECTION IS INVOLVED

Manufacturing, Engineering, and Installation of Fire Protection Systems since 1870

ONLY MOTOROLA

is really ready now for split-channel operation

Every Motorola 2-way radio system has one important built-in feature that you'll never actually see—the OBSOLESCENCE INSURANCE provided by years-ahead planning and design.

Here is the newest striking example of the far-sighted protection you enjoy in your Motorola 2-way radio. "Split-channel" operation, which permits increased use of the frequency band available to you for 2-way radio, was recently sanctioned by the Federal Communications Commission. Motorola anticipated the need years ago . . . and prepared for it by incorporating the PERMAKAY filter, oven-type crystals and adjustable Instantaneous Deviation Control into all systems. The result: Today Motorola is *really* ready for split-channel operation.

Built right into every piece of Motorola 2-way radio equipment shipped today are all the extra features necessary for simple and inexpensive conversion to split-channel operation. In fact, transmitters shipped since January, 1956 already meet or exceed the basic requirements recently set forth by the FCC. Motorola receivers and transmitters produced since 1949 require only a simple field modification kit for *full compliance* with the new rules.

Be sure your 2-way radio won't be rendered obsolete by split-channel conversion. Compare Motorola with any other system for ease and cost of conversion . . . compare the "after-conversion" performance of both and you'll see for yourself how Motorola's engineering protects you for years to come.

If you bought Motorola—you have no worry. If you are now selecting your 2-way radio, be sure it's Motorola. Select the split-channel equipment or the standard bandwidth equipment with ready receiver conversion to split-channel bandwidth.

MOTOROLA

2-WAY FIRE RADIO

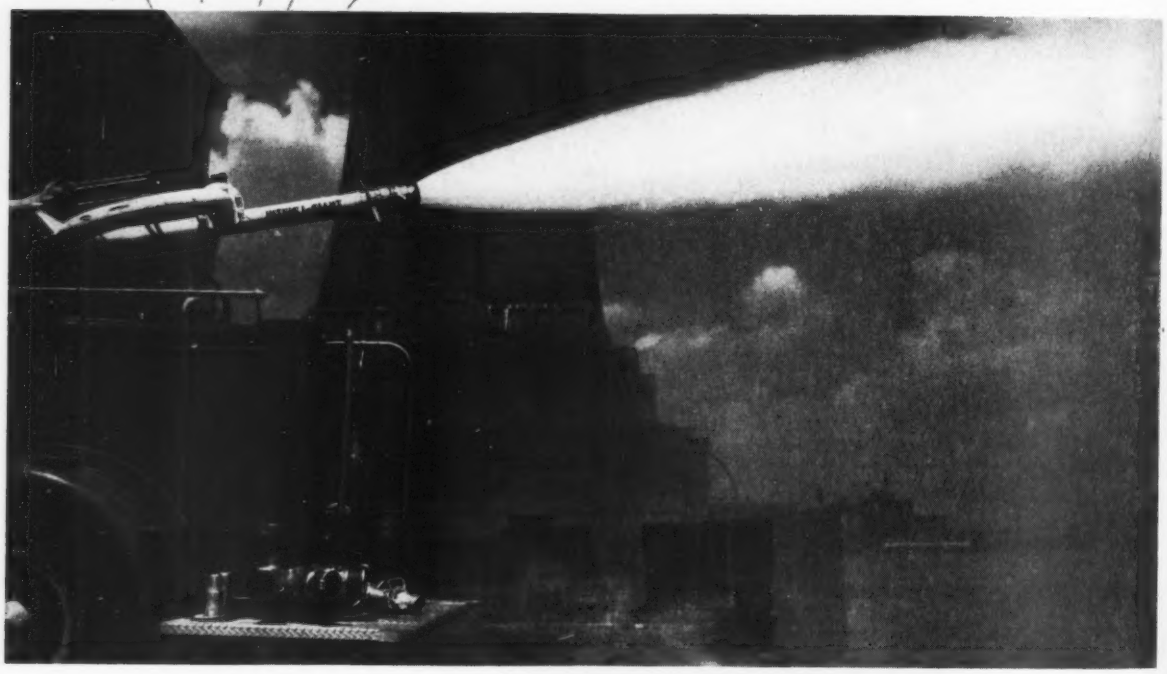
MOTOROLA COMMUNICATIONS & ELECTRONICS, INC.
A SUBSIDIARY OF MOTOROLA, INC.
4501 AUGUSTA BOULEVARD • CHICAGO 51, ILLINOIS

Motorola consistently supplies more mobile and portable radio than all others combined.
Proof of acceptance, experience and quality.
The only COMPLETE radio communications service—specialized engineering...product...customer service...parts...installation...maintenance...finance...lease.
"The best costs you less—specify Motorola."

IN FIREFIGHTING—

CHIKSAN Intelli-Giant...

THE NEW BIG BERTHA OF FIRE SUPPRESSION



Capable of delivering a quenching 2,500 gallon per minute deluge, this latest development in master stream fire fighting equipment has a dramatically effective striking range of better than 320 feet in distance, a far-reaching 165 feet in height. Yet with all of its powerful striking force, one man seated at hydraulic controls has finger tip mastery of the Intelli-Giant at all times. Extremely versatile, the design of the Intelli-Giant makes it ideally suited for installation either on mobile equipment or as a fixed emplacement in hazardous areas. "Modern Firefighting," a highly informative movie on the Intelli-Giant is available. Please write Chiksan, Brea, Calif. to arrange a showing, attention Dept. 243.

Dispatched to combat a roaring mill fire on an island in the Schuylkill River, this Intelli-Giant, owned by the Philadelphia Fire Department, reached areas where conventional monitors could not. It prevented the inferno from engulfing 650 feet of the seven story building not yet affected by the fire.

Photos courtesy Philadelphia Fire Dept.

A SUBSIDIARY OF FOOD MACHINERY AND CHEMICAL CORPORATION

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CHIKSAN

CHIKSAN COMPANY—BREA, CALIFORNIA • CHICAGO 5, ILLINOIS • NEWARK 2, NEW JERSEY

Well Equipment Mfg. Corp. (Division), Houston 1, Texas • Subsidiaries: Chiksan Export Company • Chiksan of Canada Ltd.

NEW Super Fyr-Strype

Built-in protection of pure DACRON* at critical fold areas . . .

WRITE TODAY FOR COMPLETE INFORMATION

eliminates 90% of hose wear!

Super Fyr-Strype, Fyr-Fyter's newest first line municipal fire hose, has built-in protection of pure *Dacron** strips over the total outer jacket fold areas! These areas are the highly vulnerable points of standard cotton jacket hose where 90% of wear occurs. Super Fyr-Strype's tough and rugged reinforcing strips are practically immune to wear . . . they provide a new high in resistance to the ravages of abrasion! Added advantages include *extra strengthening* at key points permitting high test pressure—an extra safety margin; *quicker drying* at folds and creases—a positive protection against mildew at these points because the *Dacron* fold strips are non-absorbent; and *increased flexibility* for faster unloading and easier racking.

In addition to fold strips, both outer and inner jackets are also reinforced with *Dacron* filler cord. Here again Super Fyr-Strype has built-in extra endurance and resiliency for top performance, plus high resistance to mildew, chemicals and water absorption. It is 15% lighter and 50% stronger than conventional hose. This double jacket, 600 lb. test hose is available in 50 ft. lengths, either 1½" or 2½" diameter.

***DuPont's trade-mark for its polyester fiber.**

Fyr-Fyter

DIVISION OF THE FYR-FYTER COMPANY
221 CRANE STREET, DAYTON 1, OHIO
Branches: *New York, Boston, Philadelphia, Chicago, Atlanta, Dallas, San Francisco, Los Angeles, Portland, Seattle*
REPRESENTATIVES IN PRINCIPAL CITIES

Early Delivery on

WARD LaFRANCE

Fireball Special

America's NEW low-cost fire truck delivered in 30-60 days

In response to popular demand, production lines at Ward LaFrance have been set up to permit early delivery of Fireball Specials. Now . . . in a matter of days . . . this modern, low-cost truck can become part of your fire-fighting force. Proven in service over the past two and one half years, this truck has received widespread praise and public acceptance.

The Fireball Special is engineered and built for long years of hard service . . . offers quick starting, fast flexible operation and generous pumping power. Particularly well-suited for suburban and rural fire company use, it incorporates a Chrysler Firepower 183 HP standard or 203 HP optional engine, 500 or 750 GPM Waterous Electro-Matic pump, 500 gallon booster tank, plus other outstanding features.

This modern low-cost pumping engine has proved itself in all kinds of fire service from Maine to Texas and from the east coast to the Rocky Mountains. Write for full details on the Ward LaFrance Fireball Special. Don't wait, do it now!

WARD LA FRANCE TRUCK CORPORATION

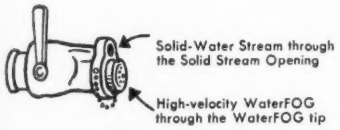
Fire Apparatus Manufacturers for over 39 Years

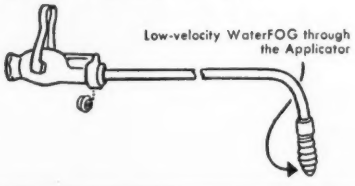
GENERAL OFFICE & FACTORY: Grand Central Avenue, Elmira, N.Y. Tel. 3-5631. **DIRECT FACTORY BRANCH:** 139th Street & Bruckner Blvd., New York 54, N.Y., Tel. CYpress 2-3300. **EXPORT:** Ward LaFrance International, Inc., Elmira, N.Y., U.S.A., Cable Address: "Wardtruck"

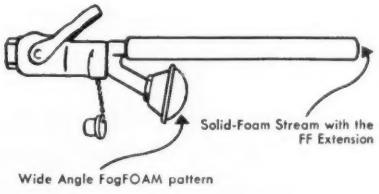
Rockwood SG-60 WaterFOG Nozzle is five nozzles in one

The lightweight Rockwood SG-60 WaterFOG Nozzle *eliminates "special" or single-purpose nozzles!* It actually does the work of five nozzles to put out fires faster, safer and more economically.

Here's what we mean . . .

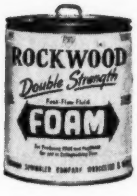




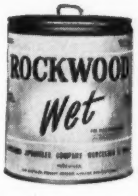


Here's what you need to put out ordinary combustibles and flammable liquids . . .

FOAM and "Wet" Eductor with the new FW Metering-Check Valve. Introduces Rockwood FOAM or "Wet" into hose lines, automatically proportioning correct amount of FOAM and "Wet" to water. Also usable wherever one liquid is fed into another on a fixed percentage basis.



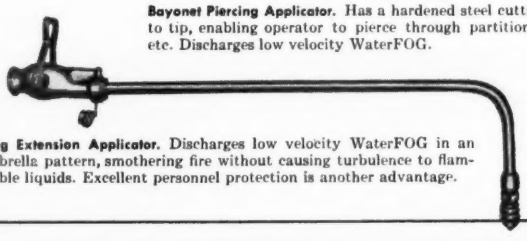
Rockwood Double Strength FOAM. Puts out fires in flammable liquids, and in ordinary combustibles, quicker, at lower cost. Three parts FOAM and 97 parts water create a heat-resistant blanket.



Rockwood WET. One part WET mixed with 99 parts water increases water's penetration and extinguishing action. Gives quickest results against deep seated fires. Saves time, water, manpower.

FF Extension Unit. Shown with Type SG-60 Nozzle. Discharges Rockwood FOAM in a solid stream or as Fog-FOAM. Wide angle makes it possible to cover large areas at one time.

Bayonet Piercing Applicator. Has a hardened steel cutting tool attached to tip, enabling operator to pierce through partitions, into interiors, etc. Discharges low velocity WaterFOG.



Long Extension Applicator. Discharges low velocity WaterFOG in an umbrella pattern, smothering fire without causing turbulence to flammable liquids. Excellent personnel protection is another advantage.

ROCKWOOD SPRINKLER COMPANY

Engineers Water . . . to Cut Fire Losses

Distributors in all principal industrial areas

and here's the way to get more information

ROCKWOOD SPRINKLER COMPANY

Portable Fire Protection Division
1550 Harlow Street
Worcester 5, Massachusetts

Please send me your illustrated booklet on Rockwood fire-fighting products.

Name .....

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City .....

Zone ..... *State* .....

Chief **POWHATAN'S** *NEW*

*DURA**-*FOG NOZZLE*

- ***A Strong Husky Nozzle***
- ***Maintenance Free***
- ***Greater Reach***
- ***Finer Dispersion***
- ***Denser Curtain***
- ***Each Nozzle Sold Has A 100% Performance Test***

* *So Called Because of its Durability*

Rubber bumper for protection and non-slip grip. "Clicks" into straight stream or desired fog pattern. Stream can be selected by sight or touch. Floating gland type shut off. Shock absorbant shut off mechanism. Sure grip base and sturdy handle.

Over a million shut-offs
WITH NO LEAK

Dura-Fog Nozzles have been thoroughly bench tested, to assure dependability. We strived for 250,000 shut-offs, actually tests have gone over a million with no leak!

PERFORMANCE DATA 1-1/2" SIZE

	STRAIGHT STREAM		30° FOG PATTERN		60° FOG PATTERN		90° FOG PATTERN	
NOZZLE PRESSURE	GPM	REACH	GPM	REACH	GPM	REACH	GPM	REACH
100 PSI	57	85′	60	40′	65	30′	72	20′
125 PSI	62	105′	65	43′	68	35′	75	22′

We have been manufacturing fire protection items for the past 64 years. If you do not have one, write for our catalog "A" which shows Powhatan's complete line.

REG. U.S. PAT. OFF.

POWHATAN

BRASS AND IRON WORKS
RANSON, WEST VIRGINIA

EAGLE NATECS RADIO-CONTROLLED SYSTEM REPORTS:

THIS INTERSECTION IS CLEAR!

. . . even another emergency vehicle won't cross it now

This driver knows the intersection is clear . . . by the glowing white light. And if a second emergency vehicle should approach on the cross-street, another white light facing the second driver will flash on and off, warning that the first vehicle has priority.

Natecs is radio controlled. A transmitter on the vehicle beams the message to a receiver on the intersection signal. And it's all automatic. The driver doesn't even have to flip a switch when the vehicle changes direction. Operation on radar frequencies permits a narrow beam that won't affect any signals but those directly ahead . . . up to ¼ mile.

EAGLE

EAGLE SIGNAL CORPORATION
Municipal Division
Moline, Illinois

Eagle equipment serves first . . . serves fine

MAIL COUPON TODAY

EAGLE SIGNAL CORPORATION
Municipal Division, Dept. FE-357
MOLINE, ILLINOIS

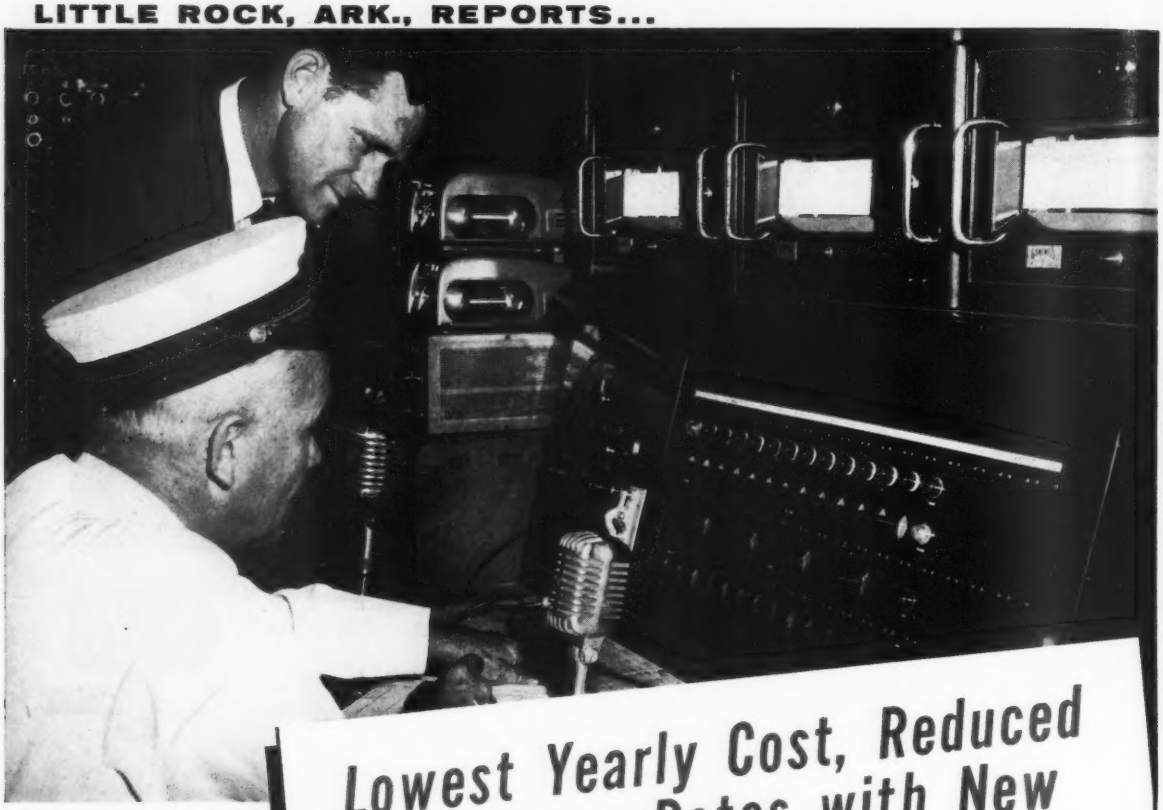
Please send complete information on Eagle's new emergency traffic control system.

NAME AND TITLE

MUNICIPALITY

FULL ADDRESS

LITTLE ROCK, ARK., REPORTS...



Fire Chief Gann Nalley, and Mayor Mann, welcome the modern Gamewell Fire Alarm system installed to protect the lives and property of their fast-growing community.

Lowest Yearly Cost, Reduced Insurance Rates with New GAMEWELL SYSTEM

On April 14, 1956, Little Rock joined the ever-increasing list of communities which have thoroughly investigated all types of fire alarm systems — and selected Gamewell. Here is what they found:

- Average annual cost would be as much as 2½ times cheaper than leased voice type service.
- Gamewell system sets into operation, automatically, the dispatching facilities for the entire fire defenses — including all required central office equipment. The fire alarm system is tailored exactly to the Fire Chief's needs and city's fire defense plan.
- It contributes to improvement of city's fire insurance rating from Class IV to III — a saving to property owners of some $100,000 a *year!*

This new 202-box system was planned for coverage of high value districts and will be expanded to protect the fast-developing outlying areas — additional boxes quickly added at very low cost.

Get ALL The Facts! You can bring these same advantages to *your* community. Just ask for a FREE Gamewell Survey. And, most important, be sure you have *all* the facts on costs and completeness of vital municipal fire alarm protection — send for the Gamewell Booklet, "Conversation or Organization". Write:

FIRE FACTS

in Little Rock

Original Gamewell system served efficiently for 42 years. 202 new boxes located in high value districts.

Average of 35 boxes per square mile of built-up area.

Class A Form 4 switchboard, with operator's console, Loud Speaker Inter-communication and paging system serving 11 fire stations, and fire station recording and alarm sounding equipment.

Industrial plants to be safeguarded through Gamewell "Master Box Plan" for extra protection of workmen and industrial plants.

Complete system installed, depreciated and maintained for less than $70.00 per box per year. Additional boxes can be installed and maintained for substantially less than this figure.

Remember-a Gamewell System is FIRST when seconds count!

THE GAMEWELL COMPANY
Newton Upper Falls 64
Massachusetts

GAMEWELL®

THE BOX IS POSITIVE · REDUCES HUMAN ERROR

FIRE
ENGINEERING

VOL. 110, NO. 3 MARCH, 1957

DRIVER LIABILITY

Federal laws regulate the navigation of ships on the high seas. The pilot is not legally responsible for any collisions that may involve his ship and even though the error be his, he need not stand personal suit for damages.

Likewise, state laws govern procedures whereby a railroad engineer must operate his train. Thus he must blow his whistle when approaching certain grade crossings.

Should a person or vehicle be struck by his train at a crossing, the person may, if he survives, sue the railroad but the chances of his collecting on such damage suits are dim unless it can be proved in court that the engineer neglected to sound his whistle, or that the warning gates were not operating.

In such situations, the railroad, not the individual engineer or grade-crossing watchman, is the defendant. The railroad, which owns the right of way on which the train was traveling, is the responsible party to the suit. And the company usually maintains a capable staff of legal talent which is rarely beaten in court.

Contrast this with a situation in many states involving a piece of fire apparatus. The fire vehicle, traveling on a public thoroughfare, is driven in most cases by a man of responsibility, selected as a driver because of his capabilities. He may well be a man who owns his own home and possesses other worldly assets.

His calling is a vital one to his community. He is sincere in his efforts to reach the fire with his valuable cargo of men and equipment to save life and property.

Every effort is made by the driver, and his fellow firemen to save precious seconds in that response. In most states the law, at least on paper, permits the driver to go through red traffic signals and stop signs.

But the traffic regulations generally, do not make an exception to the rules giving the driver the right to ignore those stop lights or signs.

It may come as a surprise to many firemen to learn that should the fire department vehicle while so responding, strike a pedestrian or another vehicle, the driver as well as the owner of the apparatus, can be sued. Perhaps a joint suit may be instituted. The driver (or the department) under these conditions, must retain legal services to defend himself in court. Without laws granting drivers the right to break traffic regulations while en route to a fire or other emergency, their defense in court is so weak that their case may hopelessly be lost before the case opens.

In some states, the driver of a fire department vehicle, under these conditions may conceivably lose his home and life savings, and the owners of the apparatus may lose their property. In short, although morally and within the rights imposed by the existing traffic and other state regulations, the fireman-driver stands to be ruined for life, for doing only what he was expected to do—even if it cannot be proved ipso facto that he was not doing his job as well as he might.

True, some fire companies in states having laws which fail to provide proper measure of protection—or offer no legal protection at all—may carry insurance to cover such contingencies, but not many can afford to pay for policies that would cover damages that might run into hundreds of thousands of dollars.

Consider the difference between the marine pilot and railroad engineer and the apparatus driver. Whereas the pilot and locomotive driver have all the protection their occupations deserve, the poor apparatus driver quite possibly is sticking out his neck every time he takes his rig out of the station.

Of course for the most part, the situation we have described hits hardest at the volunteer fire service. Chauffeurs of paid departments are usually better protected. But existing paid and volunteer state laws do not afford the protection which they should.

Stopping vehicles at every crossing, every red light, every stop light, improving traffic signals and communications systems, of course, may reduce the possibility of accidents, but this won't get to the root of the trouble—which is the law. There must be adequate and stringent legal measures to protect fire fighters at the state as well as local levels. There must be effort on the part of fire service organizations to effectuate such statutes. No driver should be permitted, let alone forced, to require his own legal talent to defend himself under such circumstances. His responsibility is the fire department's responsibility. And it, and the nation's entire fire service, should see to it that requisite protective measures are initiated to protect drivers of fire apparatus under all and every service conditions.

Roi B. Woolley

Quebec Province Integrated Fire-Police Forces Fight Costly Conflagrations

Two major fires within 30 days, raise question of effectiveness of combined police-fire departments

VALLEYFIELD, QUEBEC, has a combined fire and police force which was called upon December 30, 1956, to control a raging fire that killed one person and destroyed or damaged a dozen commercial firms and some 30 flats, with property loss of about $1 million. It is reliably reported that but for the prompt, efficient assistance of employees of the Security and Maintenance Departments, Montreal Cottons Limited, and neighboring fire forces which sped to the calls for aid from the stricken city of 20,572 persons, the entire Bellerive district, if not the entire municipality, would have been wiped out.

Valleyfield's combined fire-police force consists of a chief, a deputy chief and 30 men, all of whom serve as both police officers and firemen. There are also eight corporation employees available on call. The two-platoon system is in effect, with about 14 men on each shift. It is reported there is no organized mutual aid plan in the area.

The Bellerive district as it is known, is an old congested secondary mercantile area comprising chiefly frame low-cost homes and apartments and commercial structures, one to four stories in height.

The first alarm was received by telephone from a resident across the street from the Donat Leboeuf Grocery Store at Grand Isle and Cousineau Streets. The fire is said to have started in the store, about 5:15 a.m. This was a three-story frame building having eight apartments on the second and third floors over the grocery. The temperature at the time was 10 to 15 degrees F. below zero and a bitter 25 to 35-mile-per-hour wind was blowing from the west.

The fire-police headquarters received the alarm at 5:20 a.m. and Pump 1 responded from No. 1 Station with six police-firemen, arriving at the fire in about four minutes. They were followed at 5:30 a.m. by the chief, Jean Paul Marleau, driving the aerial ladder truck.

The fire was gaining great headway at the rear of a group of contiguous frame buildings of two and three stories, located at the corner of Cousineau and Grand Isle Streets. Smoke conditions in the grocery and neighboring structures were heavy and the origin of the fire could not be established. Several persons had to be taken out of the smoke-charged Grand Isle Street apartments by ladders.

The fire rapidly ate its way through the solid group of frame stores with dwellings above, then spread upwind into a string of flimsy wooden sheds of one and two stories in the middle of the block. At the same time on another flank, the fire jumped an alley to involve a poolroom and stores running eastward on Grand Isle Street. More ladder rescues were required here, the southeast opera-

Left: Valleyfield volunteer firemen aid a comrade whose eyes were frozen shut during below-zero fire battle. Quebec winters are not kind to firemen and/or policemen. **Right:** Valleyfield, Que., pumper, taken out of "moth balls" continues to function despite coating of ice at conflagration that destroyed a dozen commercial firms and 30 flats

tions being hampered by heavy smoke and high winds.

As the fire continued to spread, Chief Marleau called out his full resources. Hose 2 responded at 5:40 a.m. with several men from No. 2 Station. At 6:00 a.m. the off-shift was called in by telephone and by 6:15 the two second-line pumpers responded, followed shortly by the old reserve pumper (pictured herein).

The strong wind was blowing across Grande Isle Street, a 45-foot thoroughfare which proved too narrow to prevent the fire jumping it. This set-back to fire control operations occurred at about 7:30 a.m. when the line of contiguous brick-veneered small stores and dwellings on the east side of the street became involved. A stream from the aerial ladder pipe was directed with good effect along the roof of the structures involved in this extension.

At about 8:30 a.m. the mill brigade of the big Montreal Cotton Ltd. plant had laid out two lines of about 500 feet to the front of the fire from the private yard hydrant system of the mill. These hand lines were operated along the fire front. At this time, also, a call for assistance was put through to the City of Lachine, 25 miles away, and Fire Chief Euclide Lamarche with a pumper and a crew of four men arrived shortly after 9:00 a.m. They laid lines some 1200 feet to a canal where their pumper was set at draft.

Later, a group of men from the Ville LaSalle department arrived by car to assist, having traveled the 25 miles in 25 minutes without waiting to be summoned. About 70 civilian volunteers also joined the fire fighters and city employees working in the bitterly cold weather.

Outside police called in

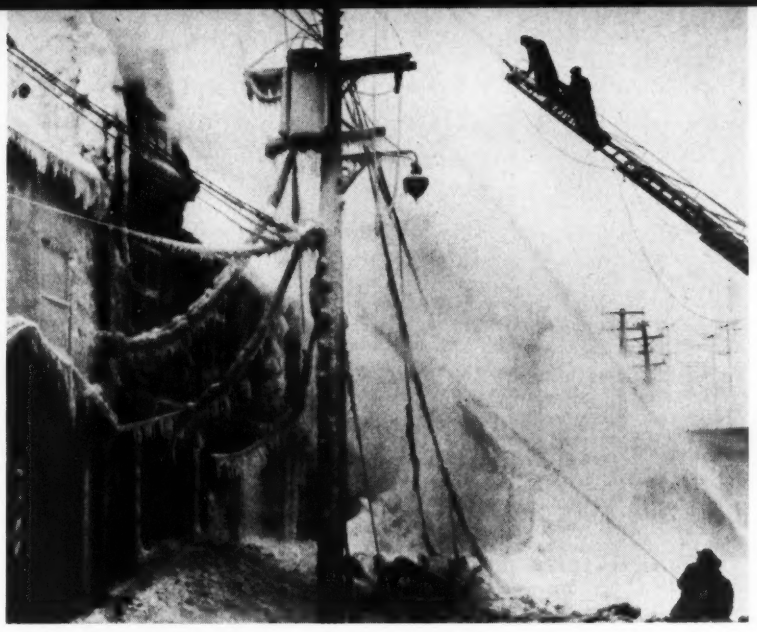
When the extent of the fire became known, with most of the city's safety employees engaged in attempting to control the spreading fire, a number of officers of the Quebec Provincial Police responded to take over traffic and other police duties.*

Assisting in fighting the blaze with local firemen in addition to those above mentioned, were men and equipment from the Defense Industries, Ltd., munitions plant at Nitro, Quebec. At peak efforts, 18 streams were in operation on the blaze from three different streets. Apparatus and men were soon coated with ice, as were the burning structures, trees, power and light and telephone poles in the vicinity. The area for blocks around was showered with sparks, and volunteers extinguished a number of incipient fires. Residents of several threatened buildings attempted to evacuate furnishings, using every kind of vehicle.

Police and Fire Chief Marleau and eleven firemen suffered injuries and required medical care. The chief's hands

Continued on page 269

* Accurate information on how Valleyfield police work was carried on jointly with fire fighting operations is lacking as this is written. From piecing together available reports, it would appear that for nearly four hours there was no organized police operations, all police-firemen being engaged in fighting the fire and making rescues on the fireground.



Sorel, Que., firemen direct streams on burning 40-room Chateauguay Hotel. New aerial ladder shown was sent by Pierre Thibault of Pierreville, makers of fire fighting equipment, and helped stem the conflagration

Mutual Aid Saves Sorel, Quebec

SOREL, QUEBEC, an industrial city of about 20,000 located on the south shore of the St. Lawrence River about 40 miles from Montreal and reportedly supporting an integrated fire and police force, suffered a devastating blaze on January 29, which caused damage of $500,000 and threatened to wipe out the business district.

The fire, reportedly caused by faulty wiring which triggered an explosion in the furnace room of the 100-year-old, 40-room Chateauguay Hotel on August Street, destroyed that structure and a print shop, where the weekly newspaper "Le Sorelois" was published; a tavern; a jewelry store and a lingerie shop. All of the hotel's 15 guests and seven employees escaped the blaze in their night clothes although 10 persons were at first said to have perished in the fire.

The weather was near-zero and a strong breeze was blowing. The fire was discovered at 4:30 a.m. by Paul Beaubien, night manager of the hotel. He said he first noticed smoke seeping into the lobby at that time and he immediately went to the switchboard and called all the guests's rooms, after which he went to the rooms and hammered on the doors. The time of receipt of the first alarm by the fire department is not given. Hector Laveille, operator of a hotel across the street from the Chateauguay said, "I heard the engines go by shortly after 4:30 a.m. When I looked out the window the whole street opposite me was a mass of flames. People were running around everywhere, some of them wearing only pajamas or nightdresses. It looked as though the fire was going to cross to our side of the street any time, so we immediately evacuated our hotel."

The Sorel fire chief is Wilfrid Gallant, who took command upon arrival. When the extent of the fire was assessed, he called for help from neighboring St. Joseph and Pierreville, as well as from Sorel Industries, Ltd.

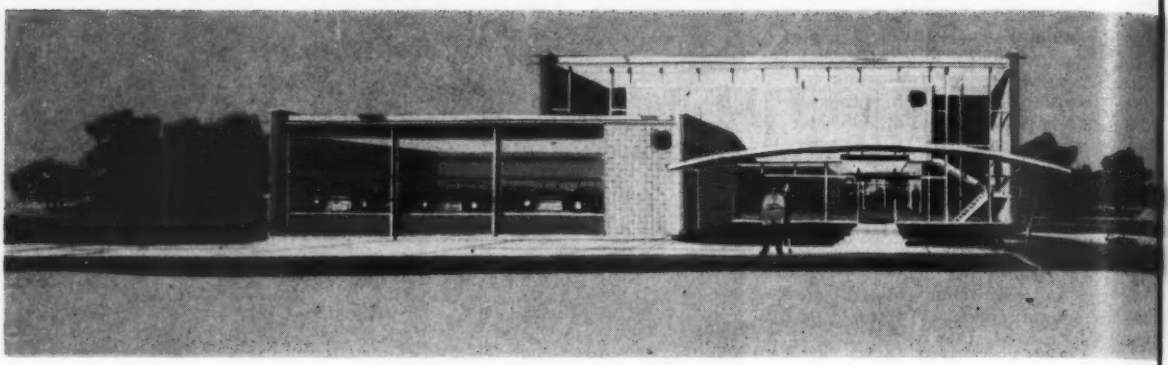
Firemen from those locations "aided by more than 100 civilian volunteers," poured 20 streams of water into the blazing buildings from shortly after the fire was discovered until it was brought under control at 8:15 a.m.

"We thought we had it licked at about 5:00 a.m.," said a Sorel fire official, "but then the wind started up again and fanned the flames back to life."

According to reports, a great deal of the credit for preventing further spread of the fire is given to Pierre Thibault, of Pierreville and his sons, Marion, Rene and Yvon. The family operates a large factory for the manufacture of fire fighting equipment in that town, located 20 miles from Sorel, and as soon as the call for help was received, the Thibault forces hurried to the scene with an aerial ladder, three pumpers and 100 volunteers from their factory. The equipment they took with them was all brand new.

The aerial ladder, and ladder stream is credited with playing a large part in preventing the fire jumping Augusta Street. As it was, the flames ravaged the area bounded by King, Queen Streets, St. Elizabeth and August Streets. Most of the buildings involved were of two and three stories, brick and wood-joist construction.

In this fire, as in the Valleyfield conflagration, firemen took severe punishment from the weather. Fortunately, no serious injuries were reported. The hour of the day and extreme weather held the crowd of spectators to the minimum. In this conflagration, as in that of Valleyfield, citizen volunteers assisted the firepolicemen. □□



Fire House No. 5, Manhassett-Lakeville, N. Y.

An Analysis of Modern Fire Station Design—

Thru the Architect's Eyes

By STANLEY R. ROSENBERG, R. A.

Sirof, Rosenberg and Sivertsen, Architects and Engineers

THE MANHASSET-LAKEVILLE Fire House No. 5 represents a prototype in fire system design. It is a fire house and a civic building, proud of its duty and obligation to protect the surrounding community. As such, this building stands forth uncamouflaged as an English-style country house or an industrial garage. The contemporary structure reveals to the passing taxpayer its charge of modern equipment in full battle dress.

No. 5 house serves a 55-man volunteer fire company with three pieces of equipment consisting of two 750-gallon pumpers and an 85-foot aerial. The program of required spaces given to the architects was as follows: Equipment room with three bays each 15 feet wide; officer's room; central alarm phone booth; company ready room; company meeting room; game room; small community meeting room; kitchen for rooms; large assembly hall for entire department; utilities to serve the area.

These areas totaled approximately 9,900 square feet on a 14,300-square foot plot, subject to the usual setback of side yard regulations. The project resolved itself into a partial two-story structure.

Equipment and service rooms: The equipment room with its heavy truck loads and clear spans is built on a reinforced concrete slab on grade with a terrazzo floor finish. The service rooms are located at the rear of the truck room floor and arranged to permit immediate access to apparatus when alarm sounds.

Several sets of doors equipped with panic-bolt mechanisms are provided in these rooms to facilitate firemen traffic flow in the direction of truck travel. The rooms open with large glass panels to the equipment room, providing a continuous and satisfying view of the company's prized equipment. These rooms, the company meeting room, ready room and game room, are expandable through the use of folding doors, into one large meeting area. They cluster around a kitchen (see first floor plan) which is also provided with a pass-through to the rear yard and is strategically located for ease of service.

Arranged at the side of the equipment room are the following facilities: The emergency entrance which is adjacent to a master throw switch controlling the interior lighting; the specially sound-insulated phone booth connected to central headquarters, near the activators for the glass-paneled mechanically-operated overhead doors; the officer's room, soundproofed behind a large glass interior picture window, and men's and women's toilets so located as to serve both the main lobby and the equipment room.

The equipment room boasts some unique features. Its floor level is 4 inches lower than the rest of the building. The reason is two-fold: This change of level prevents water used in washing the equipment from leaking over door saddles into either the side or rear rooms. It also retains large quantities of carbon monoxide deposited by the engines which are frequently run indoors. Carbon monoxide, a heavy gas, settles into the 4-inch depressed floor level from which it is withdrawn by strategically placed exhaust ducts before infiltrating the whole station.

All equipment room walls are constructed of a masonry block to which a waterproof and stainproof plastic surface has been fused. This material has proved to be equal to ceramic-faced block and much more economical. In addition, it forms a structural bearing wall. A recess was designed to accommodate racks for a 1½-inch hose for filling the pumper and for a standard ¾-inch garden hose for general wash-down purposes. This simple and inexpensive installation alleviates the usual process of dragging the hose from a storage room and pulling a still draining hose over dry floors.

Public entry and community meeting rooms: Under a gracefully curved arch and covered pathway is the public entry. It is furnished with a terrazzo floor inlaid with the company's emblem in contrasting colors. Interior walls are of brick and vinyl plastic. The lobby is further graced with a "floating" staircase of precast terrazzo visible through an exterior glass and aluminum wall which extends two stories from grade to roof.

In the midst of all this practicality, the architects have introduced two bits

of nostalgia: The original steel triangle alarm built into the support of the arched entry canopy and the obsolete sliding pole mounted in the two-story glassed-in stair well between the stair handrails.

The entry area leads to the aforementioned public rest rooms, company ready and meeting rooms and a community meeting room equipped with its own small built-in kitchenette. The farsighted commissioners, Eden, Hamell and Enzel of the Manhasset-Lakeville Water District included this meeting room for the convenience of the taxpayers of the community. They recognized the importance of identifying the fire station as a civic structure capable of a dual role—fire station and community center.

Second floor: A second floor was required to serve the full-assembled department of officers and men for official and social functions. For this purpose, a 40 by 48-foot assembly room with a 12-foot ceiling was designed. At the far end of the hall is a paneled wall background for a future stage or rostrum. At the near end, is a large kitchen, storage room and dumbwaiter. The storage room opens to the assembly room through a 12-foot folding door. This exposes the full storage room to the large area and permits seats assembled on dollies to be wheeled out with a minimum of effort. The kitchen is fitted with commercial-type fixtures to enable a large group of people to be efficiently served. Service is through a pass-through protected by a rolling steel shutter and fusible link.

Maintenance considerations

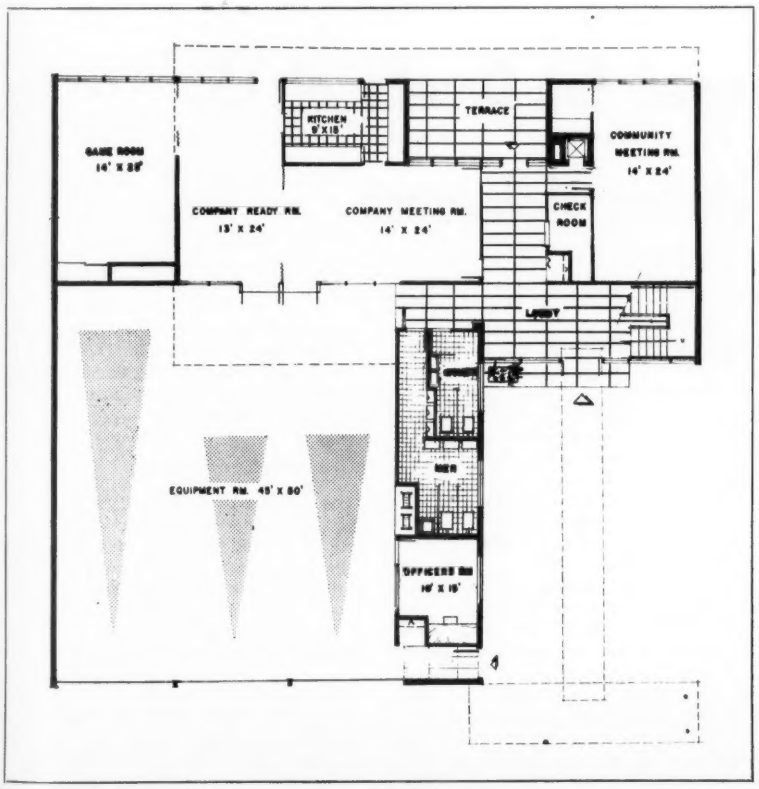
In the design and planning of all the areas which are discussed here, prime consideration was given to ease of maintenance and permanence of materials selected. All walls and floors exposed to moisture and water were constructed of terrazzo, tile or plastic-faced masonry. Plaster surfaces were covered in new vinyl wall coverings resistant to stains and abrasions. They are beautiful in texture and color and yet are economical in their elimination of all future painting requirements.

All metal surfaces are aluminum, specially treated to resist weather and soiling. Variety in wall treatments was provided by the introduction into the interior of the same face brick used on the exterior, along with floor-to-ceiling hardwood paneling in specific areas such as the game room and the assembly hall. Floor finishes consist of a vinyl tile with a terrazzo spatter finish which requires no waxing and which shows no chair and table leg marks.

There is special greaseproof tile in the the kitchen areas; ceramic tile in toilets; terrazzo in public halls and entries. A super-hard varnish finish of the type commonly used on basketball courts is employed to finish the maple hardwood floor in the large assembly room. All counters and wall areas adjacent to kitchen sinks have liberal coverage of formica.

On the exterior of the building the same careful planning is evident. The brownish smooth-faced brick is resistant to stains and industrial gases. It is self-cleaning because of its glazed finish. The brick is contrasted with light colored Crab Orchard stone veneer.

Other materials used here are glass and aluminum, both of which require little care. Exterior walks and patios are made of concrete with a slip-proof aggregate and integral color added.



First floor plan

Color used widely

In the selection of all interior and exterior colors, the use of contrasting shades for the prevention of accidents and ease of maintenance was studied. At changes in level such as the depressed apparatus room floor, bands of a different color of terrazzo are inlaid.

Emergency exit doors contrast with surrounding walls to facilitate identification and mark exit routes. The color palette was selected for this structure not only for both decorative and aesthetic satisfaction but also for practical considerations.

The walls of the equipment room are a speckled dark green on a light green plastic background which conceals stains and grime more effectively than a flat ceramic color finish.

Lighting

In planning the lighting of this fire station, the architects have attempted to minimize occupational hazards resulting from poor lighting by (1) providing sufficient flexibility of lighting to avoid excessive contrasts between indoor and outdoor lighting conditions and (2) avoiding brightness at ceilings and concentrating lighting at working levels where most needed.

A flexible system of light circuiting similar to the one adopted by tunnel authorities was provided for the 40 recessed room lights in the apparatus room. This allows brilliant artificial interior illumination in the rear to balance daylight at the front by permitting flexible switching of lights in a series of rows across the room. For nighttime use, 500-watt exterior floods are recessed into the faces of the walls over the truckroom doors. These lights are designed for tunnel use. They throw a broad rectangular beam of light at a 30-degree angle to the concrete apron.

Intercommunication system

All the station rooms are equipped with recessed loudspeakers. These are connected to a master panel in the ready room. The main assembly hall has a complete annunciator system.

Heating system

Heat is supplied by a forced hot water system. In this scheme, exterior anticipatory thermostats start a gas-fired hot water furnace before the interior thermostats require heat. This feature prevents what is referred to as a time lag in heat-

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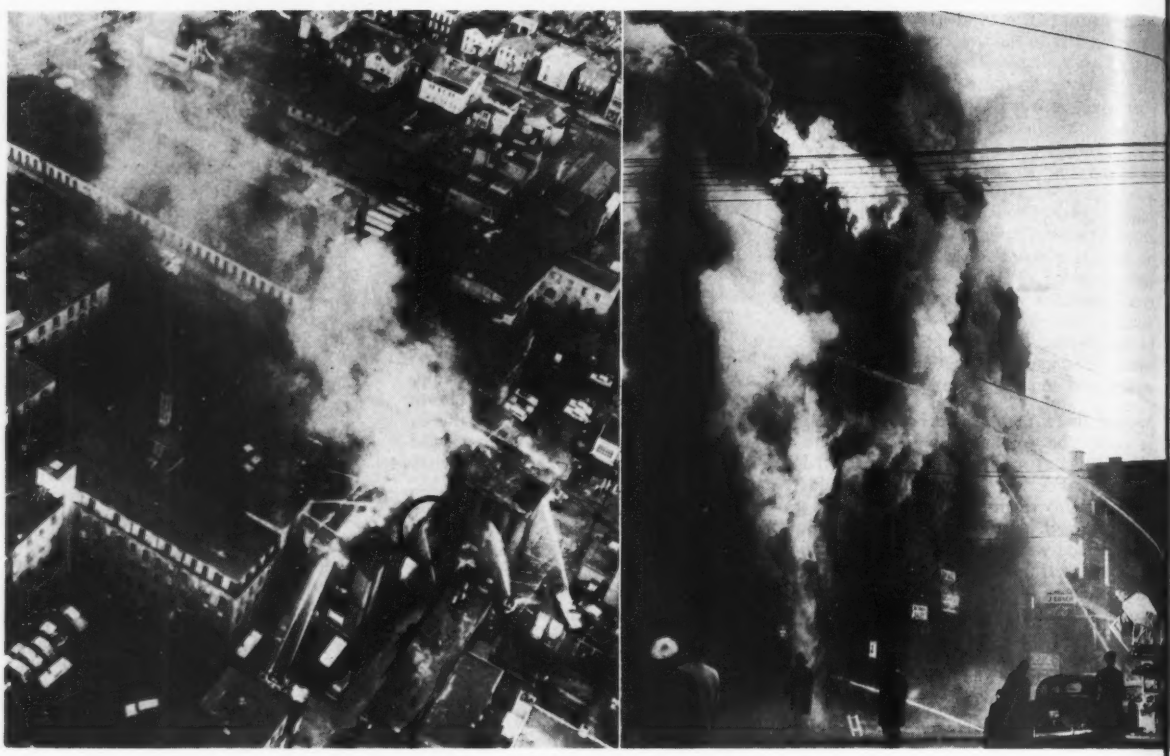


Left: Aerial view of fire fighting operations. Note proximity of the exposures which were protected by heavy streams from every vantage point. Circle indicates fire escape area where heavy loss of life occurred. **Right:** Aerial 1 adds its deck pipe to the two hand lines operating on the front of the factory. This photo taken shortly after the first alarm companies arrived, shows the fire's headway before firemen could get into action

Panic Blamed for Deaths of 15 In New Haven Holocaust

PANIC, which might have been prevented with simple exit fire drills, was blamed as the primary contributing cause of the death of 15 persons and injury to 25 others in the destruction by fire of an ancient brick-wood joist factory in New Haven, Conn., on January 24.

The building involved, located at 62 Franklin Street, was typical of the mill-type factories of nearly a century ago scattered throughout New England. The wood in such structures is dry and highly combustible. In addition, like so many others, it had elevator shafts and stairways which provided a perfect avenue for spread of the fire (see Fig. 1).

The four-and-a-half-story factory was ell-shaped and measured approximately 60 by 120 feet. It was more than 90 years old. Businesses located in the building included the Thomas Machinery Sales Co. and the S. L. Stanley Co., a sheet metal firm, on the ground floor. The Andy and Tommy Dress Co., manufacturers of ladies' dresses, occupied the entire second floor. The M. Baer Dress Co. occupied the third floor and the Lumor Manufacturing Co., manufacturers of life rafts, and the Jo-Al Dress Co. shared the fourth floor. At the time of the fire approximately 120 people were employed in the building, most of them women. Six persons were on the first floor, 36 on the second floor, 50 on the third floor and 28 on the fourth floor.

The exposures were of similar construction and age although not all were factories. Several private dwellings were located in the area and one, a two-and-a-half-story dwelling, abutted the factory on the southern exposure. A large four-and-a-half-story U-shaped factory was separated by a narrow alley and courtyard on the south side at the rear. The burned factory was not equipped with a sprinkler system, but it did have a building box connected to ADT central station supervisory service. The layout of the factory building and the imminence of exposures were not conducive to easy rescue and fire control.

Fire started on first floor

It is believed that the fire originated in rubbish and waste paper stored in containers located in the hallway of the first floor (see Fig. 1). The material had been collected from the dress shops on the upper floors and was awaiting removal.

The flames reached upward to involve the floors where many women were at work. In the rush to escape, many of them crowded onto the single outside fire escape where they were injured in the dash to safety.

Many of the women lost their shoes when their heels became wedged between the gratings of the stair treads,

creating further delay and adding to the panic. Firemen rescued several persons whose legs were caught between the risers of the escape stairs.

Eyewitness accounts stated that some of the women appeared on the fire escape with their hair and clothes on fire. There appear to be conflicting reports about the fire escape, but some witnesses claim that the drop section jammed at the lowest level and failed to extend to the ground. This resulted in further pile-ups and terror. Others contend that the first persons to reach the swinging section failed to release the latch which locked the drop section in the "up" position. With the press of the people from above, several of the women ducked under the release bar and edged out on the stairs. The drop section suddenly released and swung down to the ground, pitching off the persons on it. This led to further reports that the escape had collapsed.

At the same time, fire and smoke burst from a first-floor window under the fire escape, searing the persons attempting to reach safety, and causing many of the casualties.

The bodies of two victims were recovered on the first-floor landing of the fire escape and two more were found on the landing of the second floor. The bodies of five persons were later found in the building. Several days after the fire, six of the more seriously injured died from the effects of burns.

Fire department operations

At 2:56 p.m., the dispatcher of the New Haven Fire Department received an alarm from municipal Box 35 for a fire at 62 Franklin Street. At the same time an ADT alarm was received for the location. Responding were three engine companies, a ladder company, a battalion chief and a deputy chief. Engine 7 is stationed only a few blocks from the location of the fire. By the time this and other units of the first alarm assignment reached the scene, the fire had spread throughout the building. All the floors were charged with heavy smoke. Flames were visible at some of the windows and the screams of the hysterical occupants could be heard for blocks.

As is customary, the first efforts of the fire fighters were to attempt rescue of the victims, many of whom were still jammed on the fire escape. To reach the fire escape, located in the ell at the juncture of the front wing of the building and the rear section, firemen broke down a wooden fence which separated a courtyard on the Chapel Street side of the factory from the parking lot of an adjacent restaurant.

Additional alarms were transmitted in rapid succession as the chief officers grasped the seriousness of the situation. Battalion Chief Frank Lawlor radioed for a second alarm immediately upon his arrival. This brought two engine companies, a ladder company and Chief of Department Thomas Collins. Deputy Chief Howard Paine, responding on the first alarm, followed this immediately with a third alarm. Responding were two more engine companies and another lad-

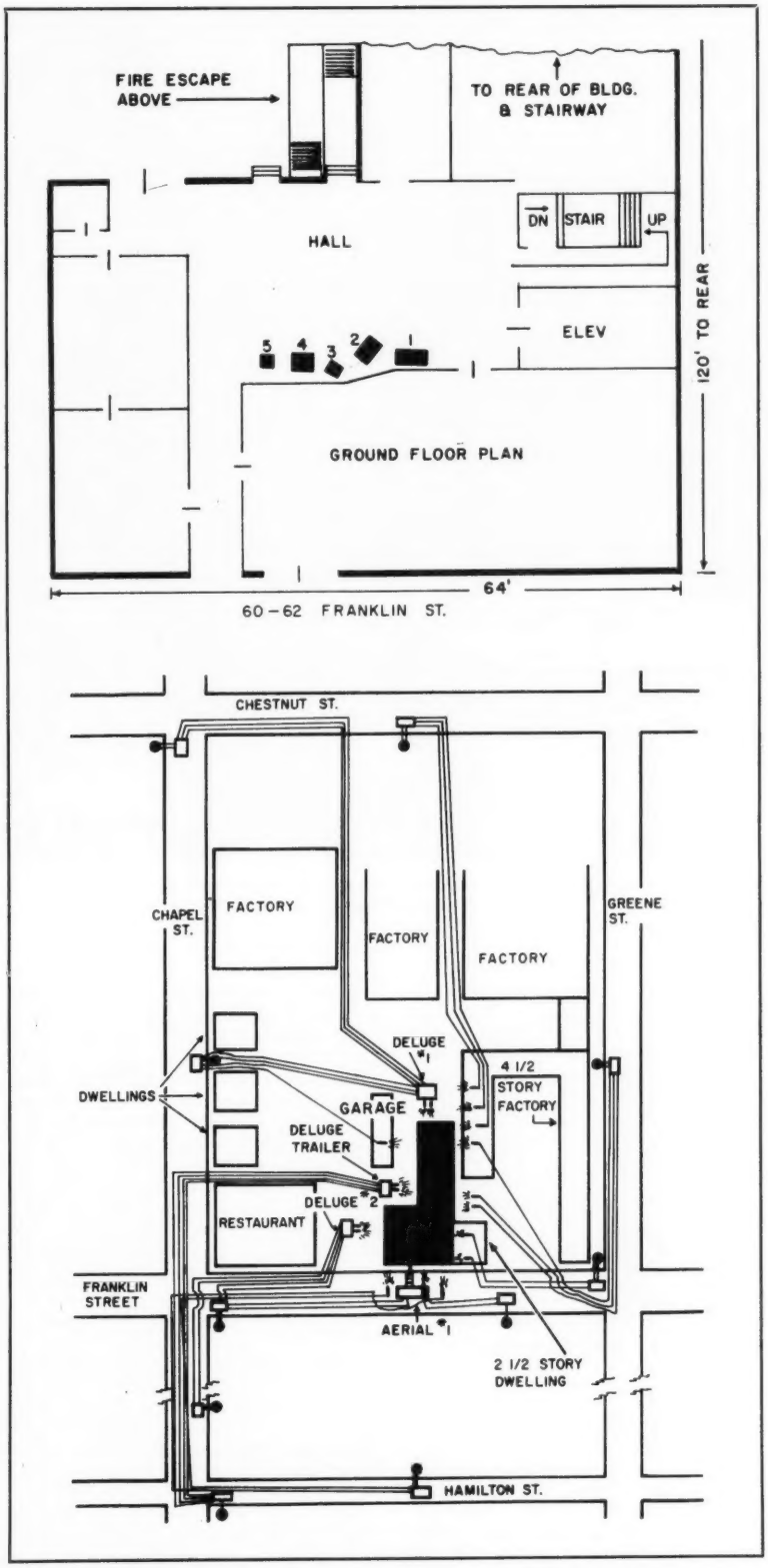
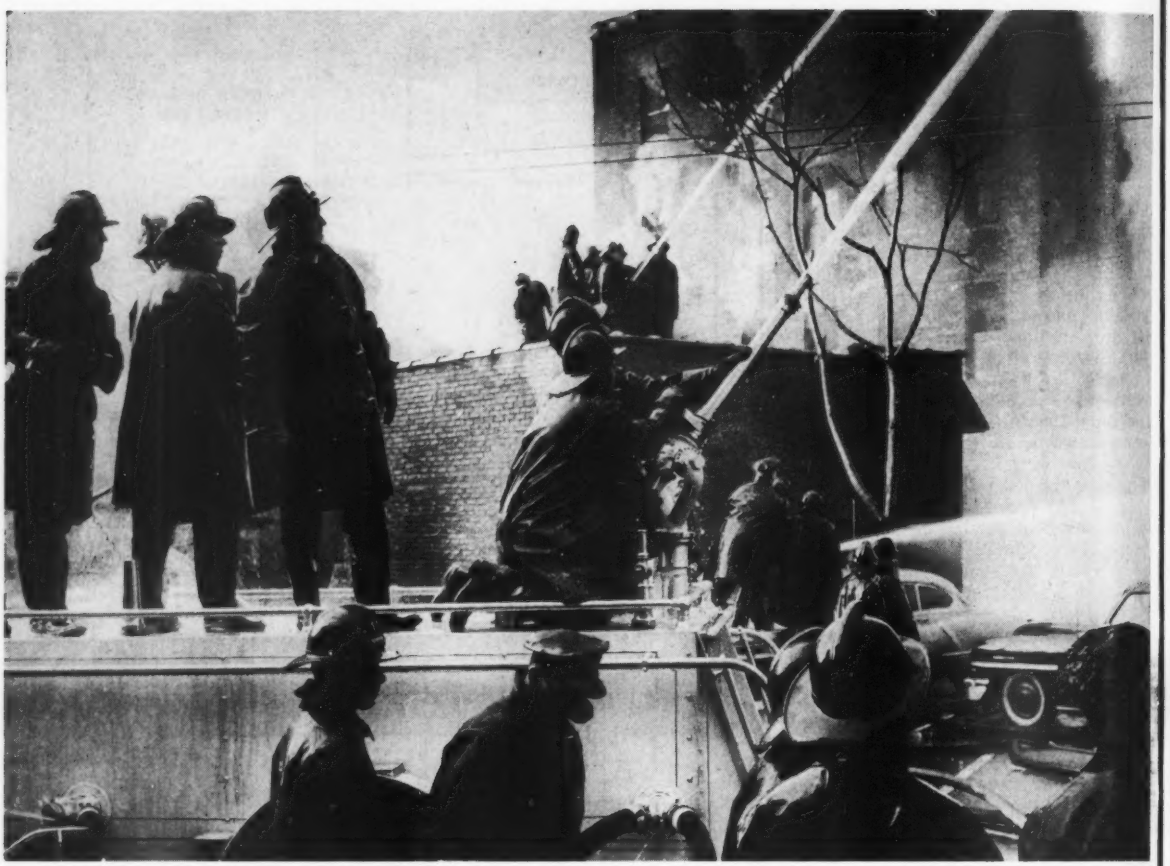


Fig. 1. (Top) Floor plan of the front section of the factory. Location of the refuse containers in which fire is believed to have started is shown in black (Nos. 1 to 5)

Fig. 2. Operational diagram showing location of hose streams, deluge apparatus and exposures. At the height of the fire 10 pumpers connected to hydrants supplied 11 hand lines and eight master streams



Deluge Unit 2 and Deluge trailer operating from parking lot on north side of factory. Shortly after this photo was taken, all heavy stream units were in operation. Note hand line operating from roof of garage in background

der company. Upon his arrival, Chief Collins assumed command of the operations and ordered a fourth alarm. He also called for all available ambulances. Shortly after this, Chief Collins noted a weakening of the building walls and directed that all fire fighting operations be conducted from the exterior of the factory.

Chronology of Response

First Alarm—2:56 p.m.—Engines 7, 2, 12; Aerial 1; East Battalion Chief; Deputy Chief

Second Alarm—2:58 p.m.—Engines 4, 11; Aerial 6, Chief of Department

Third Alarm—3:00 p.m.—Engines 8, 1; Aerial 2

Fourth Alarm—3:12 p.m.—Engines 10, 17; Aerial 3, West Battalion Chief Daniel O'Connell

Concurrent with the rescue operations, hand lines were brought to bear on the fire and to protect exposures. Aerial 1 put its forward deck pipe into action on the front of the building to supplement the two hand lines operating from the street. The ladder pipe was directed to reach the fire in the top of the building.

Deluge Unit 2 and a deluge trailer were ordered into position on the north-side parking lot. This added four heavy streams to reinforce the single hand line that was operating from the roof of a single-story shed-garage. Deluge Unit 1 was placed at the rear of the building and operated two heavy streams. Hand lines were placed on the south side to protect the exposures and attack the fire.

At the height of the attack, four hand lines were operating from the roof of the exposed factory in the rear. In addition, two hand lines were placed in the alley separating the two factories and two more were located on the roof of the abutting dwelling.

Assistance quickly volunteered

During the fire fighting operations more than 200 off-duty firemen returned to service voluntarily and Chief Collins was able to maintain 10 engines and three ladder companies in service, using spare apparatus to supplement those active companies not called to the fire. The West Haven Fire Department sent an engine company which stood by on mutual aid in the quarters of Engine 1.

The call for ambulances to assist in the removal of the injured was quickly answered. The Flanigan and New Haven ambulance services sent every available unit; Westport sent one unit, Milford one

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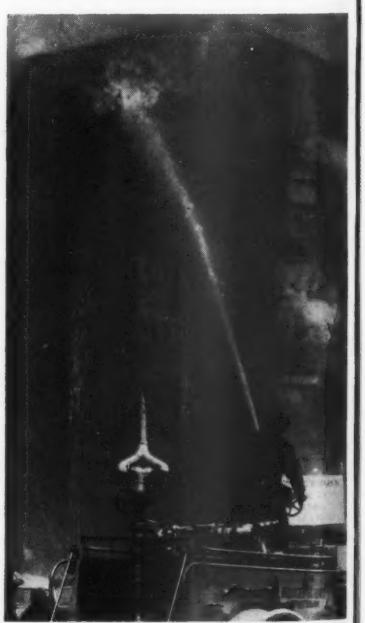
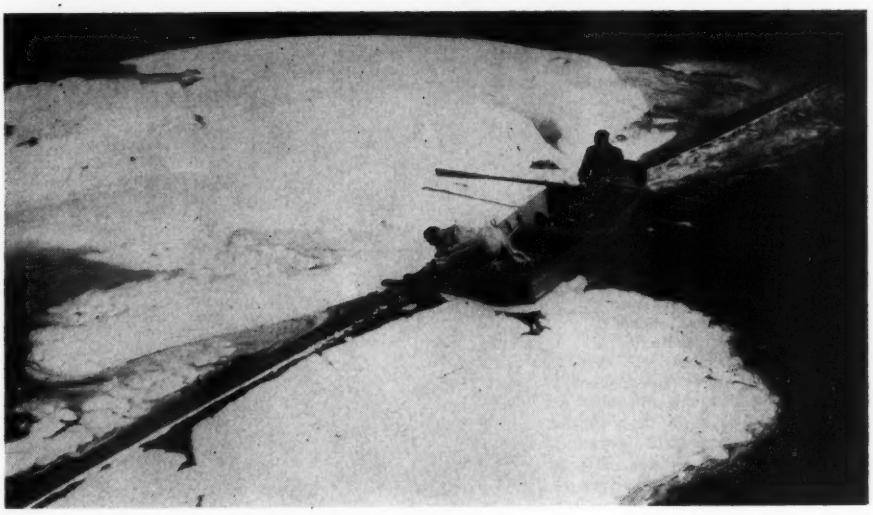


Deluge Unit 1 getting into operation on the rear of building. Quick work of New Haven firemen in setting up, helped prevent extension to nearby exposures



Confining an oil slick on harbor waters by use of the special hose being laid from a rowboat by two men. Compact storage size and light weight are among the features offered by the new system

Foam-Filled Hose for Confining Spilled Oil at Ports

By J. GRINDROD

New Milton, Hants, England

WITH THE INCREASING QUANTITIES of oil being loaded or unloaded at ports or in harbor basins, the risk of spilled oil from leakages spreading from the immediate vicinity of loading or discharge operations has also been correspondingly increased — with consequent increase in the hazards of fire.

Such risks have emphasized the necessity for some arrangement which would prevent this from occurring and which would make possible the "lacing-up" or confining of the oil so as to facilitate its being sucked up by pumps or injectors.

So far, such appliances have often taken the form of a series of connected floating timbers or long plate booms which are towed out to the spot where the oil has been spilled. In the United States, cork-filled hoses of asbestos fabric are being used. These hoses are stored in disconnected 30 m (about 100 feet) lengths, and when used, the lengths are coupled together and are towed out to the place where the boom is needed. Experiments have also been made with hoses continuously filled with CO_2 gas. All these types of booms, however, not only make great demands upon storage space, but also on available staff and means of transport.

In Sweden, a prototype of an entirely new kind of device has now been manufactured by the fire department of Aktiebolaget Pumpindustri, of Göteborg 5, which is based on an idea put forward by A. Wicklander, a Nynäshamn engineer.

This so-called still-boom consists of a neoprene-impregnated nylon fabric hose with a diameter of about 150 mm (about 6 inches.) The hose is provided with a fin of soft fabric, with a depth of about 20 cm (about 8 inches) which, in turn, is fitted with lead cords, hemmed in at the base. Produced in 100-m (328 feet) lengths, the hose is provided with 125-mm (about 5 inches) Storz couplings. At intervals of 10 m (about 33 feet) the still-boom is equipped with plainly visible handles and arrangements for mooring connections.

In storage, each hose length is kept in a hose bag made of tarpaulin fabric and provided with a lid and carrying handle. The hose packed in the bag has a weight of about 90 kg (about 198.5 pounds) and requires a space of 80 x 30 x 80 cm (about 2½ x 1 x 2½ feet). Completing the still-boom are steel plate, anti-rust treated floats provided with a tube-type body, equipped with 125-mm Storz fittings, to each end of which a hose can be connected. The floats are provided with a carrying handle as well as eyelets for anchoring ropes.

In use, the hose is filled with foam from a pressure foam nozzle with a capacity of about 2,000 l/m (about 528 gpm). The foam is led from the foam producer through a normal 63-mm (2½-inch) fire hose to the still-boom hose by way of a section which makes possible the transition from the 63-mm standard coupling to the 125-mm Storz coupling. The pressure foam nozzle is provided with a pick-up arrangement for the foam liquid. The nozzle has a water consumption of about 300 l/m (about 79 gpm) at 8 to 10 kg/cm² (114 psi to 142 psi). An ordinary motor fire engine can be used for the water supply.

The laying of the still-boom on an affected part of the harbor basin can be made by one man only, using a small rowboat, if a motor boat is not available. The filling up with foam to a distance of 100 m takes 1½ to 2 minutes. The pressure foam nozzle is capable of filling up at least 200 m (about 656 feet) of hose with foam. Should a longer still-boom be required, the hose can be filled up in sections, which are connected by means of the floats previously mentioned. In such a way a closed ring can be arranged.

During experiments the hose has been tested in water up to 48 hours, after which period of time it was still filled with foam and air. Refilling with foam does not present any difficulty. The still-boom being flexible and fitted with the soft fin, it always rides easily with the waves.

Experiments continued

AB Pumpindustri are continuing their experiments in order to produce a fireproof foam hose. Very recently the company made a test with a foam hose made of plastic glass fibre fabric, which was laid out in the basin used by them for fire fighting experiments. The hose was subjected to intense heat by igniting the oil. It was found on examination that the plastic had melted to some extent, but the hose was not damaged. AB Pumpindustri intend to pursue their investigations in this direction. □□

Drag lines and earth movers come to aid of Memphis fire fighters in struggle to control fire in "mountain" of corn cobs. Man on heavy stream wears mask as protection against dangerous gases

Stubborn Cob Fire Presents Unusual Control Problems

Memphis Fire Department wages 29-day battle to extinguish corncob fire at Quaker Oats Plant

By CHIEF JOHN C. KLINCK
Memphis, Tenn., Fire Department

ONE OF THE MOST UNUSUAL and prolonged fires in the history of Memphis, Tenn., occurred last December when a 70,000-ton pile of corncobs burned at the Quaker Oats plant. The fire broke out on December 2 and was not fully extinguished until December 25. As far as we have been able to determine, there has been no record of this type fire anywhere in the country.

The Quaker Oats plant in Memphis manufactures furfural alcohol from corncobs. This product is used extensively in the manufacture of plastics and synthetics. The plant consists of 20 major buildings, several smaller structures, storage tanks for the alcohol, and the corncob storage area.

Manufacturing processes involve many hazardous operations, but the plant is well protected with sprinklers, standpipes, private hydrants and a well-trained fire brigade.

None of the buildings in the plant was involved in the fire although two large storage sheds adjacent to the cob storage area were exposed. These sheds are each 100 feet by 214 feet in area and are five stories high. Both are fully sprinklered.

Private protection for the plant consists of a looped hydrant system of 19 plugs on 6-and-8-inch mains, 1½- and 2½-inch hose, two fixed monitors at the cob pile and a large number of minor appliances and equipment.

The cob storage area is located at the north end of the plant property. It was an "L" shaped area running roughly 500 feet along the outside edges, 200 feet wide on the east leg and 300 feet wide at the south leg. At the time of the fire, the pile was from 60 to 70 feet high and contained an estimated 70,000 tons of corncobs.

The pile was broken and loosely piled along the top and sides. The surface contained craters, gullies and depressions where the pile had settled. Footing on the pile was precarious and movement on it was difficult.

Fire goes "underground"

The fire was first detected by a plant watchman on the morning of December 2. At 4:43 a.m., an alarm was received from the plant by the fire department and apparatus was dispatched. The engine company first arriving on the scene laid a 2½-inch line and the fire was quickly knocked down. By 7:30 a.m., all companies had returned to quarters.

However, the fire had apparently tunneled into the pile through veins and soft spots without being visible from the surface. During later stages of the fire,

Fire Chief John C. Klinck and Deputy Fire Chief Baugh direct use of special spear nozzles successfully to reach and extinguish some subterranean fires

as the pile was pulled down, we found charred areas running for considerable distances inside of the pile leading to burned out or smoldering pockets. In other places, we found craters up to 20 and 25 feet deep where fire had worked its way down into the pile from the surface.

Later in the fire, we also observed that combustible gases were generated in large quantities, and it is probable that pockets of this gas were ignited by flying brands and sparks at considerable distances from the main body of the fire itself. This undoubtedly also helped spread the fire.

Shortly after noon on December 3, the house watch at Fire Station 23, reported to the fire alarm office that a fire was visible at the Quaker Oats plant and a minute later, an alarm was received from the plant.

Companies were again dispatched and when they arrived, a considerable amount of fire was found on the east side of the pile. The fire department laid out three 2½-inch lines, and two more lines were stretched by the plant fire brigade.

The visible surface fire was considerably reduced, and about four and a half hours later, a spare pumper was sent to the plant to help overhaul the pile. At the same time, most of the companies which had responded to the plant were returned to quarters.

A detail of firemen and plant employees continued overhauling the pile. At about 9:45 that evening, the fire broke out with renewed intensity, and shortly afterwards an additional pumper was sent to the plant. We then made a careful survey of the pile and at that time, it was determined that there was a very deep-seated fire in the east leg of the pile. We also suspected that the fire was working its way into the south leg of the pile, but we were not able to determine this definitely until about 24 hours later.

Heavy fire department streams could not reach deep seated fire which burrowed through corn cob pile. Here, dozers spread out storage removed from pile by drag line

Heavy smoke condition

The fire started generating a very heavy volume of smoke and gases which made operations very difficult at the scene. Several men were overcome by carbon monoxide gas, and at 1:41 a.m. on December 4, an aerial ladder with self-contained masks and a resuscitator was dispatched to the plant.

Later in the morning, a meeting was called with plant officials, and we requested them to obtain bulldozers and draglines to begin moving the involved area of the pile.

Efforts were made by Quaker Oats officials to obtain a number of these implements, but because of the intensive construction program in the Memphis area, it was impossible to get as many bulldozers and operators as we needed. It was not until several days later that Quaker Oats officials were able to secure the desired amount of equipment. The equipment which was immediately obtained was put to work on a round-the-clock basis moving the pile.

Masks necessary

Considerable difficulty was experienced with carbon monoxide gas, and men working in the area were supplied with all-service and self-contained gas masks.

Despite the efforts of firemen and plant officials, the fire continued to spread and by the next day, the entire top of the east leg of the pile was involved. Aided by a westerly wind, the fire began to work its way down the west side of the pile and began channeling into the south leg. At the same time, gas conditions on the pile became so bad that all personnel were ordered to the ground.

Chemists at the plant analyzed the gas and smoke for us and found it to contain a large percentage of carbon monoxide. In addition, it contained acetone, acetic acid and methyl alcohol. These chemicals all have toxic properties, are harmful to the lungs and eyes, and in combination are liable to form explosive gases.

For these reasons, we supplied all personnel in the area with gas masks, set up a first aid station and had samples of the gas and smoke analyzed every hour. As far as was possible, we also had personnel work on the windward side of the fire.

During the next few days, we brought additional pumpers and equipment into the plant, supplemented the private water supply with city water, and were able to get draglines and additional bulldozers to work.

Despite these efforts, the fire contin-

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Exploratory Committee on Fog does its stuff. Last of several tests demonstrating fog, fog foam and wet water applications. Note heavy fog streams covering exposures. In foreground, Memphis Fire Department's "Multi-Master"

2224 Register at Annual FDIC Pilgrimage

29th "Clockwork Conference" strikes new high note as Vernor-Klinck team stages super-session

THE TWENTY-NINTH Fire Department Instructors Conference — and the twenty-third to be held in Memphis— on February 19-22, registered a total of 2,224, a new high in attendance of fire department executives and instructors, fire and plant protection engineers, educators, public officials and fire insurance industry representatives, from 45 states, U. S. possessions and Canada.

The Conference, sponsored jointly by the Western Actuarial Bureau and the Memphis Fire Department, also broke all records for attendance at the four-day sessions, which lasted from 9:00 a.m. until 4:30 p.m. daily, with selected speakers "carrying the word" even during lunchtime.

Following precedent, Richard E. Vernor snapped on the green light promptly at 9:23 a.m., Tuesday the 19th (the warning light went on at 9:00) and the "clockwork conference" was on. Chairman Vernor said, "This is no convention. It is a private party at which you are all welcome guests. Its only objective is to help all of us do a better job by the exchange of ideas. You will hear from experts from 29 states in this busy crowded four-day session; aside from them, another 100 handle the complicated machinery of the Conference, most of these, members of the superb Memphis Fire Department."

On hand to extend the city's greetings were Vice-Mayor and Fire and Police Commissioner Claude A. Armour; Fire Chief John C. Klinck; Chamber of Commerce President R. A. Trippeer and O. L. Ledbetter, president, Memphis and Shelby County Council of Civic Clubs.

In a brief memorial service, the Conference stood in silent tribute to the memory of two departed FDIC stalwarts, Harry K. Rogers and Colonel Harold R. Brayton.

The opening speaker, Chief Roi B. Woolley, editor, FIRE ENGINEERING, whose topic bore the cryptic caption "Your Take Home Pay," said, "There is probably nothing that has such profound influence upon the nation's fire service and, in turn, upon safeguarding the nation from destructive, deadly fire, as this gathering. . . . Keeping abreast of increasing fire hazards in this chemical, electronic and atomic era isn't an easy way to earn money." He warned that fire losses are increasing "in spite of our very real advances in training techniques and fire fighting facilities. Unfortunately there are a lot of well-meaning souls, often in high places, who abhor fire, but aren't willing to do anything about it." He urged those in attendance to profit by the Conference, take its lessons home with them not only to increase their take home pay but to insure more for their people.

Inequities in the rating of extinguishers were discussed by Jack A. Bono, Underwriters' Laboratories, after which followed the first of eight panels which proved high points of the Conference. This was led by Robert Byrus, University of Maryland. The subject was "Getting the Most from Post-Mortems." Chief Earl Levy, Tallahassee, Fla., outlined post-mortem procedures. Chief Fire Marshal Albert H. Peterson, Chicago Fire Department, explained how they might uncover structural defects and code violations. Chief O. E. Hirst, Galena, Ill., Fire Department, emphasized that post-mortems offer the best training method available.

At the luncheon, Norton T. Ames, president, Wisconsin Council of Firemen's Associations, Oregon, Wis., entertained the vast luncheon crowd on the subject "Bill the Volunteer." He was introduced by William D. Buck, secretary-treasurer of the International Association of Fire Fighters.

A panel with Harry H. Wolff, field officer, Western Actuarial Bureau as leader, came next, in which "Training Patterns" were analyzed and reviewed by W. H. Barnett, superintendent, Florida State Fire College; Warren Y. Kimball, manager, Field Services Department, National Fire Protection Association and editor of "Fireman," and Keith Royer,

Top: Panel on "Post-Mortems" (left to right): R. C. Byrus, Fire Service Extension, University of Maryland (leader); Chief O. E. Hirst, Galena, Ill.; Chief Fire Marshal A. H. Petersen, Chicago; Chief Earl Levy, Tallahassee, Fla.

Center: Rural Fire Problems Panel (left to right): Chief L. C. Ray, North Park Fire Department, Rockford, Ill.; H. J. Corcoran, Engineer, Iowa Inspection Bureau; L. E. Shingledecker, fire safety supervisor, Nationwide Insurance Co., Columbus, Ohio; A. H. Gent, Illinois Inspection Bureau (leader)

Bottom: Home Fire Inspections Panel (left to right): Chief Rod Porter, Winnetka, Ill.; Battalion Chief J. F. Meskill, Philadelphia; Chief Daniel McDermott, Epworth, Iowa; W. C. Jenkins, chief, Fire Prevention Bureau, Division of State Fire Marshal, Columbus, Ohio; Chief L. R. Schick, Davenport, Iowa (leader)

Top: The Greeters (left to right): R. A. Trippeer, president, Memphis Chamber of Commerce; C. A. Armour, vice-mayor and fire and police commissioner; O. L. Ledbetter, president, Memphis and Shelby County Council of Civic Clubs; J. C. Klinck, host chief

Center: Question Box Panel (left to right): W. F. Merkel, fire chief, Yorkville Works, Wheeling Steel Corp., S. A. Pickard, deputy state fire marshal, Raleigh, N. C.; Dan C. Hicks, fire marshal, Nashville, Tenn.; Chief Earl Hood, Spearfish, S. D.; H. M. Hutchinson, training officer, Waco, Tex.; R. H. Chamberlain, field engineer, New York Fire Insurance Rating Organization; F. A. Hartman, supervisor, Firemanship Training, University of Michigan (leader)

Bottom: Question Box Panel (left to right): E. M. Rice, manager, Plant Protection, Allis Chalmers Manufacturing Co., Milwaukee; Chief E. J. Blohm, Detroit; Battalion Chief L. F. Peterson, Tucson, Ariz.; Mack Thompson, lieutenant, Fire Marshal Section, Arkansas State Police; C. H. Howe, Jr., fire marshal, Montgomery County, Md.; N. H. Davis, executive engineer, Underwriters' Laboratories, Chicago (leader)

supervisor, Firemanship Training, Iowa State College. Panel members detailed the encouraging growth of nationwide firemen's training programs.

Fire Chief Earl R. McDaniel, Lexington, Ky., "charted" the characteristics of a good fire department administrator; following him new evolutions and demonstrations and fire control facilities were directed by Joseph I. Fetters. These included showing of an electronic resuscitator in operation; Nashville's emergency unit; precautions in extinguishing fires in the new "scenic cruiser" buses by Chief Frank Lieser, College Park, Md.; operation of the Memphis Fire Department's hydraulic water tower; the latest remote control ladder pipe; and a "road-e-o" contest for drivers of fire department vehicles.

Panels are popular

The second day opened with a Question Box Panel, MC'd by Francis A. Hartman, supervisor, Firemanship Training, University of Michigan, and participated in by Richard Chamberlain, field engineer, New York Fire Insurance Rating Organization; Dan C. Hicks, fire marshal, Nashville, Tenn.; Chief Earl Hood, Spearfish, S. D., Fire Department; H. M. Hutchinson, training officer, Waco, Tex., Fire Department; Chief W. F. Merkel, Yorkville Works, Wheeling Steel Corporation, Yorkville, Ohio; and Sherman A. Pickard, deputy state fire marshal, Raleigh, N. C. Questions raised concerned private fire brigades, handling acetylene tank fires, spacing of fire hydrants, fusible links on doors, nozzle flows, etc.

Gerald L. Maatman, assistant chief engineer, Illinois Inspection Bureau, gave a five-minute review of the preceding day's doings, after which a dramatized playlet on "Arson" by members of the Minneapolis Fire Department, under Chief R. C. Malmquist, provided much amusement.

Harold E. Kuhlman, chief engineer, Oklahoma Inspection Bureau, asked the help of American scientists through the National Research Council in finding better ways to prevent and extinguish fires. Research, also, was the theme of a talk by Calvin H. Yuill, director, Fire Technology, Southwest Research Institute.

Deputy Fire Chief Louis E. Vogt, Division of Apparatus, Rochester Fire Department, using slides, explained the "Heavy Stream Appliance Tests" described in FIRE ENGINEERING of September 1956. He was followed by Frank L. Brannigan, safety engineer, Atomic Energy Commission, who took the lid off "Atomic Energy Radiation Problems" in an inimitable discourse.

The day's luncheon speaker was Loren S. Bush, chief engineer, Board of Fire Underwriters of the Pacific, whose dramatic description of the "Disaster at Malibu was enthusiastically received. Mr. Bush showed colored pictures of the fire the next day. He was introduced by Chief Wayne Swanson, president of the International Association of Fire Chiefs.

"Lessons from Large Loss Fires" was the subject of a talk by Chester I. Bab-

cock, Department of Fire Records, NFPA. Following a briefing by Emmett T. Cox, vice-chairman of the Conference and Joe Fetters, the registrants were moved bodily by bus to an afternoon demonstration of advanced fire fighting methods. Four individual fires were lit off in an abandoned house, each being controlled by different means. The smoky demonstration brought the vast audience to cheers—and tears.

Quiz programs well attended

Wednesday evening was given over to showing the latest movies. Thursday's sessions led off with another quiz panel led by Norman H. Davis Jr., executive engineer, Underwriters' Laboratories, and participated in by Chiefs Edward J. Blohm, Detroit, Mich., and L. F. Paterson, Tucson, Ariz.; Charles H. Howe Jr., fire marshal, Montgomery County, Md.; R. M. Rice, manager plant protection, Allis-Chalmers Manufacturing Co., Milwaukee, Wis., and Lieutenant Mack Thompson, Fire Marshal Section, Arkansas State Police. Subjects covered fire marshal laws; ventilating occupancies; fighting Class "D" fires (explosive-type metals); pressurized container hazards; hose requirements, etc.

A five-minute summary by Robert K. Newton, supervisor, Firemanship Training, University of Illinois, of the previous day's activities was followed by a paper on "Health and Fire Hazards of Some Insecticides" by H. E. Whitmire, president, Whitmire Research Laboratories.

In a "Significant Short," Lieutenant William Seitz, Columbus, Ohio, Fire Department, urged 24-hour fire prevention. The broad subject of automatic sprinklers and their accomplishments over a three-year period was then discussed by Raymond J. Casey, National Automatic Sprinkler and Fire Control Association.

In another panel session, it was brought out that the rural public desires fire protection service more than any other public good. Abe Gent, Illinois Inspection Bureau, led this group, whose topic was "Rural Fire Problems." Aiding him were Harry J. Corcoran, Iowa Inspection Bureau, Chief Lynn C. Ray, North Park Fire Department, Rockford, Ill., and L. E. Shingledecker, supervisor fire safety, Nationwide Insurance Co.

The day's luncheon orator was Mayor Ben West of Nashville, Tenn., who was introduced by John F. Lee, manager, Tennessee Inspection Bureau. During the luncheon ceremonies, FDIC staff member, Lew Holland of Dallas, Tex., was awarded an FDIC Certificate of Merit for professional "frog calling." In more serious vein, Hugh Walker, manager, MFA Sales Engineering, American La France Corp., and Harry J. Corcoran of the Iowa Inspection Bureau were named honorary members of the Memphis Fire Department.

Home inspections urged

Chief Joseph Giammatteo, Glen Echo, Md., Fire Department, read a paper on "Area Radio Networks" in which he traced the progress of fire service radio since 1935. Then came another spirited panel, moderated by Chief Lester Schick of the Davenport, Iowa, Fire Department, aided and abetted by Wayne C. Jenkins, chief, Fire Prevention Bureau, Division of State Fire Marshal, Columbus, Ohio; Chief Daniel McDermott, Epworth, Iowa; Chief Rod Porter, Winnetka, Ill., and Battalion Chief Joseph F. Meskill of the Philadelphia Fire Department. This group explored the field for home fire inspections with emphasis on dwelling inspections. The success of a number of Ohio cities and counties in reducing fire calls was directly the result of their home inspection systems, Wayne Jenkins pointed out. In Ohio Townships, he said, there were 425 fewer fires in 1956 as compared with 1955 "with $1,401,130 less fire losses."

Injuries to fire fighters from falling walls can be avoided if the signs and characteristics of such imminent structural failures are understood and heeded, according to Charles L. Roblee, fire training instructor, Purdue University.

The day's activities closed with a

Continued on page 259

"Wayne Swanson Day" in Rockford, Ill.

January 23 was acclaimed "Swanson Day" by citizens of Rockford, Ill., in honor of the city's Fire Chief Wayne Swanson, president of the International Association of Fire Chiefs.

At noon a luncheon in the Faust Hotel, attended by 300 local and out-of-town guests, including fire chiefs, civic officials and other dignitaries, Chief Swanson was presented with a check for $4,500 to defray expenses of his International job by the Civic Reception Committee. Tebala Shrine presented him with a diamond Shrine pin. Personal congratulations and good wishes were showered upon him by those attending the public reception following the luncheon.

Representing the International Association of Fire Chiefs was Chief Alex Andreski, Janesville, Wis., president of the Great Lakes Association of Fire Chiefs. Among the visiting fire officials were Chief Fire Marshal Albert Petersen, retiring Fire Commissioner Anthony Mullaney and Chief of Patrols Fred Kempf of Chicago, and state delegations from Wisconsin and Illinois.

Chief Swanson expects to make a European tour for the Association in May which will include a visit to Sweden and other Scandinavian countries. The new president was on the program of the Fire Department Instructors Conference in Memphis, after which he visited New Orleans to finalize plans for the 84th Conference of the Association.

Upper: Chief Swanson receives the congratulations of his parents, Mr. and Mrs. Theodore Swanson. Mr. Swanson is a retired city electrical inspector

Lower: These fire chiefs joined with 300 other fire and civic officials to celebrate "Swanson Day" in Rockford, Ill. From left to right (front row) are Chief Alex Andreski, Janesville, Wis.; Russell C. Batt, Glencoe, Ill.; Wayne Swanson; Charles Morris, Beloit Township, Wis., and Glenn Davis, Beloit, Wis. Rear row (left to right): Chiefs Lowell O. Mueller, North Brook, Ill.; Ray Kolze, Des Plaines, Ill.; William F. Brewer, North Chicago, Ill.; Edward F. Steek, Skokie, Ill.; Ted H. Wesolowski, Cicero, Ill., and Ralph K. Reardon, Wilmette, Ill.

By ROI B. WOOLLEY

Left: Every possible device was used by Milwaukee firemen to remove surplus water from flooded Eagle's Club ballroom, after the fire of March 1955. Here, an improvised container is being rolled on makeshift dolly to window for dumping. **Right:** Removal of run-off water at Eagle's Club fire posed heavy problem. Although fire department does not maintain salvage corps or squads, flooded ballroom was dewatered in time to prevent serious damage to floors below, including basement bowling alley—*Milwaukee Journal photo*

PART XXII

SALVAGE CASE HISTORIES

SALVAGE WORK, as it is referred to in Milwaukee, has been a controversial subject for many years, dating back to 1940 when the last of the fire insurance patrols was taken out of service in that city.

Efforts to have the fire department assume all salvage operations was objected to by the former chief of department who ruled that unless the department was given additional personnel, together with apparatus and ample salvage covers, it would not practice salvage as did the former patrols.

In later years, repeated attempts were made through various agencies to have the fire department take over salvage, but Fire Chief Wischer has followed the policy of his predecessor. State statutes are said to support the chief's contention for placing responsibility for salvage corps operations on the Underwriters and not upon the fire service.

Milwaukee surveys salvage

A survey of the Milwaukee Fire Department was made by an outside agency in 1949, one of the recommendations being that the department undertake salvage patrol work. At the time, the department did not carry salvage covers and no instructions were given men in their use. The report claimed that if the Underwriters made a new rating survey ". . . as many as 50 deficiency points may be assessed against the department for inadequate salvage practices." It was recommended therefore, that adequate salvage appliances be provided and that standard practice instructions be developed for their use.

The recommendations further attempted to establish the fact that additional manpower for adequate salvage work is not required, to which Chief Wischer took exception. As of 1955, no action has been taken to establish salvage patrols in the Milwaukee Fire Department and the insurance companies have not returned the services of patrols to the city.

Concerning this situation, Chief Wischer says: "Actually, this department practices some salvage services, principally the removal of water from buildings having had a fire. Brooms, and squeegees are carried and efforts are made to reduce damage from all causes as much as possible. The department utilizes reduced streams whenever possible and as soon as practical in all cases." The chief points to the department's fire loss record over the years which, he states, "has not suffered since the insurance patrols were discontinued. Contrary to popular opinion in the profession," he adds, "We do not feel that our loss factor has been materially damaged in spite of having no patrol salvage service." Reductions by the State Insurance Commissioner since 1950 apparently bear out his contention.

Chief Wischer's viewpoint

Commenting further upon the department's relation to salvage work, Chief Wischer says, "Probably the only area in which the department does not function as a salvage patrol, is the matter of placing covers on contents, covering roofs and window openings, spreading sawdust and replacing sprinkler heads. As a matter of record, the only item of any

Eagles Club ballroom and bars (upper right in distance behind balcony) where fire originated, after water had been removed from floors. Such large floor areas, particularly of hardwood, are susceptible to water damage. Areas and floors below should be protected as early in the fire as possible —*Milwaukee Journal photo*

consequence is placing salvage covers, inasmuch as the other items are well handled by private concerns which provide for closing openings as a protection against the weather. Salvage covers very often fail to provide the necessary protection because they cannot be spread until considerable damage has been done. We prefer to remove contents where practical."

Chief Wischer makes these further observations: "I feel that the proper sizeup immediately upon arrival at the scene of a fire, helps to reduce losses more than any other method. The Milwaukee Fire Department uses hand pumps wherever possible, thus cutting down water damage. Basically, we attempt to locate the fire from the inside as soon as possible and have equipped the department with an average of two oxygen masks for each three members on duty. As such, we have men try to enter the building using a mask, and thus eliminate the necessity for using water unnecessarily."

That the Milwaukee Fire Department practices salvage, albeit without any fanfare of salvage squads or patrols—or individuals detailed expressly to salvage operations—is evidenced by the following case history.

CASE HISTORY NO. 3

Lodge Clubhouse

SUBJECT OF STUDY

Eagles Club—Ancient Order of Eagles

2401 W. Wisconsin Ave.

Milwaukee, Wis.

DATE:

March 7, 1955

AT 3:12 A.M. on March 7, 1955, an alarm was received at Milwaukee Fire Alarm Headquarters for a fire in the Eagles Clubhouse at 2401 West Wisconsin Avenue. Five alarms and one special call brought the following response: Fifteen engine companies, 9 ladder companies, one water tower, one rescue squad, one special equipment truck, fire department ambulance, three police department ambulances; chief of department, assistant chief, three deputy chiefs and three battalion chiefs. The fire lasted 9 hours and 45 minutes.

The clubhouse, a three-story stone and concrete structure with wood, concrete and terrazzo floors and concrete slabs for roof covering, measured 224 by 142 by 85 feet. It had a gymnasium, meeting halls, swimming pool, bowling alleys, dining rooms, bar and offices.

Due to the intense heat and heavy smoke in the upper portion of the building used as a ballroom and five bars, and lack of adequate ventilation facilities, it was necessary to use a considerable amount of water.

Because of the particular construction of the dance floor, which was depressed approximately 8 inches, two steps below the balance of the floor, the water had no place to go except to the hardwood dance floor. Some filtered through and dripped to the lower floors. Therefore, salvage presented a separate and serious problem after the fire was under control. The ballroom is oval in shape, covering approximately 14,500 square feet, and it is estimated that there were 81,000 gallons of water on this floor.

Salvage operations principally involved the removal of the water from the ballroom floor, without allowing any to drip to the lower floors, particularly onto the bowling alleys in the basement.

Delay could have been costly

During the fire the fire department was informed that a National Eagles Club Bowling Tournament was scheduled for April and any appreciable amount of water could conceivably ruin the alleys and play havoc with the tournament plans.

As soon as practicable, salvage operations were started by placing portable vacuum pumps in operation, removing water from the ballroom floor and discharging it through 2½-inch hose lines from the upper floor windows. With several inches of water remaining, several banquet-type table tops were placed over the two-step rise to form a ramp. Then by using several of these table tops as an improvised squeegee, firemen formed a brigade to push the water to the higher floor level, thence down a rear stairway.

Several openings were made in the concrete ceiling below to drain accumulated water between the dance floor and ceiling, using large containers which when loaded were placed on four-wheel skids to facilitate taking them to a nearby window for dumping.

Sand was used to dike openings leading into other parts of the building, enabling members of the department to push water through the veranda floor-level window.

Salvage operations, consisting chiefly of water removal, were highly successful. The lower floors suffered very little water damage, and the fire itself was confined to the ballroom. The bowling tournament was held as scheduled. □□

Ottawa Has Hot Time on Cold Day

During the 21-hour period from 12:30 p.m., January 15 to 9:30 a.m., January 16, the Ottawa, Ont., Fire Department answered 23 alarms of fire. While this may not be a local record for response, the temperature on the official thermometers in the Canadian capital at the time nearly established a record. During the period a crisp 20 degrees below zero was registered and dips to 25 degrees below were recorded.

As could be expected, most of the fires were for defective chimneys, and heating devices. However four of the incidents were serious, resulting in losses estimated at over $160,000, and 29 persons being left homeless.

Just how much better is EUREKA Multiple-Woven than ordinary Fire Hose?

EUREKA's exclusive *multiple-weaving* process, employing filler cords of "Dacron"*, produces top-quality fire hose with these outstanding advantages:

- 50% stronger—withstands 600 pounds pressure,
- Weighs one-third less,
- More flexible—handles easier,
- Takes 33% less space,
- Permits more hose to be carried,
- Dries more quickly,
- Provides maximum safe service life,
- Affords no space between jacket plies to collect dirt and water,
- Smooth-interior ply assures highest nozzle pressure.

Long-time users of Eureka Multiple-Woven hose know that the secret of true economy lies in buying the *finest* . . . not the cheapest!

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EUREKA FIRE HOSE

Since 1875, Specialists in Manufacturing Circular-Woven Rubber-Lined Fire Hose

1 Market Street • Passaic, New Jersey

Division of United States Rubber

short cuts and gadgets

Fire department pumper is driven to hole in the ice and suction is dropped through oil into water. An upright marker may be used to instantly locate the "ice hydrant" when deep snow hides it from view—*Popular Mechanics Photo*

Water Hole for Use in Cold Weather Areas

In the past, many fire departments located in the very cold weather areas of this hemisphere have reported various steps taken and methods used to insure a supply of water when the normal sources are covered with ice. The account and pictures of the following system were taken from the December 1956 issue of "Popular Mechanics," and are reproduced with the permission of that publication.

Finding a water supply with which to combat fire when temperatures drop to 20 or 30 degrees below zero is a common problem facing fire fighters in Alaska. One fire chief solved it by removing the ends of a 55-gallon oil drum, then cutting a hole through the 36-inch ice on a lake near his town and inserting the drum in the hole. The drum was then filled with diesel oil.

Floating on the water, the oil keeps the water below from freezing. When required for fire fighting purposes, a pumper is spotted near the ice hydrant and the hard suction is dropped through the oil into the water.

Oil drum buried in 36-inch ice is filled with diesel oil to prevent freezing. A box or wooden cover is kept over the water hole when not in use—*Popular Mechanics Photo*

"Concrete" Example of Good Fire Fighting in Illinois

When the Tinley Park, Ill., Fire Department under Chief Edmund Moss, responded to a barn fire recently, they found no water available at the scene. Chief Moss appealed for mutual aid and Alsip, Matteson, Markham, Oak Forest, Hazel Crest and Orland Park responded, some with tanks of water.

Most of the water used in saving the large homestead on the Roemer dairy farm was trucked to the scene in three ready-mix concrete trucks owned by Clarence Bettenhausen of Tinley Park. The adoption of this type of vehicle to fire extinguishment may be another "first" in the history of novel fire fighting methods.

Chief Moss said the blaze started with an explosion of dust during corn cob grinding operations. Property loss was estimated at $30,000.

Stan Helberg

Fire Report for Rural Departments

The following report of the operations of the Crookston, Minn. Fire Department by Chief William Herbert is reproduced in its entirety as an excellent example of recording operational data. The simple but complete story told by the report could well serve as a format for those small departments who are searching for methods of reporting that will get the story of their services over to the "customers."

Record of Farm Fires ..... year 1956

Number of service calls 20

Types of fires

Dwellings	6
Barns	2
Garages and storage	6
Well houses	2
Machinery, cars and trucks	2
Grass fires	2
Number of total losses	7
Number of buildings saved or partly damaged	12
Value of buildings involved	$58,350.00
Value of contents involved	23,200.00
Value of machinery, cars and trucks	5,600.00
Total	$87,150.00
Value of buildings saved	$47,150.00
Value of contents saved	14,400.00
Value of Machinery, cars, etc. saved	5,300.00
Total	$66,850.00
Fire losses in this area	$20,300.00
Miles traveled with two tank trucks	1,002
Amount of water used in fighting these fires	34,950 gals.
Longest run	32 miles from City of Crookston
Area covered with this service	22 townships
Average cost to farmers of 85 cents per year or 2¼% of property saved	

Mask Disinfectants

The Ohio State Fire Marshal's office recommends one drop of Lysol in a quart of water for disinfecting the rubber face piece of masks. Alcohol tends to dry the rubber. The face piece should be disinfected after every use.

Invalid Identification

Many fire departments have adopted some means of quickly identifying residences of invalid or incapacitated persons so that in case of fire or other emergency immediate steps may be taken to insure the safety of these people.

The Silver Springs, Md., Volunteer Fire Department distributes window cards marked with a large letter "I" printed in vivid red so that responding firemen will know at once that non-ambulatory persons may have to be rescued.

KEEP A KIDDE EXTINGUISHER NEAR EVERY HAZARD!

Move fast against fire the instant it strikes, and you can stop it with little damage. But let it get a head start, and you may lose your equipment, your buildings . . . or your life.

Be selective in your choice of fire extinguishing equipment. Choose Kidde! You can be certain of rugged construction, simple operation, and absolute dependability.

For more than thirty years, Kidde fire extinguishers have been built to the most exacting specifications, have passed the most rigorous of tests, have the highest ratings. There is not a better-made extinguisher on the market today.

In ease of operation Kidde extinguishers also stand unsurpassed. The trigger-release grip on Kidde carbon dioxide and dry chemical extinguishers is the fastest and most natural to use. With it, even inexperienced operators can move swiftly and confidently against a blaze, extinguishing flames in seconds. You simply aim the horn, pull the trigger, and fire's out. Models with squeeze valves available too.

Finally, there is the Kidde service organization. In cities everywhere there are trained Kidde representatives who are ready to service your extinguishers.

For more information about the complete line of Kidde extinguishers, write for Kidde's P-8 Catalog.

Walter Kidde & Company, Inc. 333 Main St., Belleville 9, N. J.

Walter Kidde & Company of Canada Ltd., Montreal—Toronto

Kidde

The words 'Kidde', 'Lux', 'Lux-O-Matic', 'Fyre-Freez' and the Kidde seal are trademarks of Walter Kidde & Company, Inc. and its associated companies.

Foam
Soda-Acid
Clear Water
Anti-Freeze

Cartridge-
Operated
Dry Chemical

Pressurized
Dry Chemical

Squeeze-Valve
Carbon
Dioxide

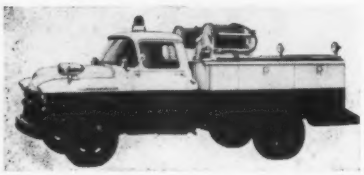
Trigger
Carbon
Dioxide

WHAT'S NEW

Among the Manufacturers

- products
- processes
- personalities

"Little Bean" Auxiliary Fire Fighter



A new high-pressure-fog fire fighter designed for fast mobility and instant action is now available from John Bean. The "Little Bean" is a self-contained unit especially recommended by the manufacturer for airport and factory protection. It also meets the demand of large municipal fire departments for a smaller, highly maneuverable unit to handle "still alarms."

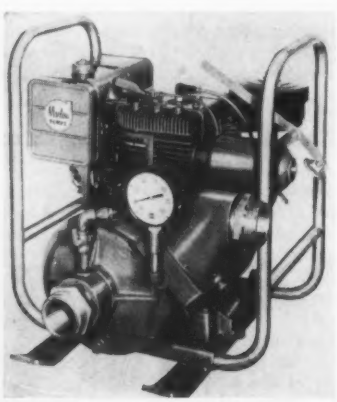
The unit can be mounted on most standard one-ton truck chassis, either two or four-wheel drive. The 250-gallon water tank has a 6-inch filler opening and removable top for easy access to all sections of the tank. The two hose reels are spring-loaded and have horizontal and vertical guide rollers for fast, easy hose laying or pick-up.

Complete information can be obtained from the manufacturer, John Bean Division, Food Machinery and Chemical Corporation, Lansing 4, Michigan. Request Catalog L-1171.

New Portable Pump

A new highly portable fire pump is now being produced by Marlow Pumps, Division of Bell & Gossett Company, Midland Park, N. J.

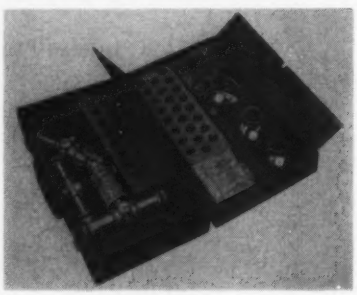
Powered by a 4-cycle, 9-hp gasoline engine, the pump will prime in 15 to 30 seconds, depending on the suction lift and has over 100 pounds pressure available for fog or foam operation.



Removable wrap-around aluminum handles protect the pump from roll-over damage and permit the unit to be easily carried or stored in small compartments.

The new pump may be used for booster service and will relay enough water through 300 feet of 2½-inch hose, and up a 75-foot hill to supply a pumper operating two ½-inch nozzles at 100 pounds pressure.

Fitted Case for Midget Resuscitator



A specially fitted case to accommodate the new Western Reserve midget portable oxygen inhalator and resuscitator unit provides a fully equipped kit ready for any emergency. Special provision is made for the basic unit and adult, junior and infant masks and corresponding airways and 48 thumb-size cylinders of oxygen together with extra oxygen arm, head strap and two packages of soda lime. For further information, write to Continental Hospital Industries, Inc., 18624 Detroit Avenue, Cleveland 7, Ohio.

Mack Introduces Torque Converter

A new torque converter drive, designed to make fire truck driving as simple as operating a passenger car, is now offered by Mack Trucks, Inc., on two types of its pumpers.

Tested and listed by the National Board of Fire Underwriters, the torque converter enables rapid acceleration and quick stop-and-go driving without shifting. This could mean less running time between station and call, especially in congested urban areas.

The torque converter, replacing the conventional clutch, multiples torque to the rear wheels by a 2.1 to 1 ratio in either low or high range wuth full engine power available at all times. The vehicle can be started in either direct drive or in the low speed, depending upon the terrain and the acceleration requirements. When the shift lever is placed in a low speed position very rapid acceleration is obtained and without removing the foot from the throttle, can be shifted into direct drive.

To operate the apparatus as a pumper, the same procedure is followed that is used for mechanical transmission and clutch. The vehicle is brought to a stop when the transmission control lever is returned in neutral position. The pump control lever is engaged in the pump position, the transmission is shifted into direct drive and the apparatus is ready for full operation. No speed lag is encountered and the time for "lifting" water is identical with the mechanical drive type of apparatus.

Portable Wet Water Mixer

The Deynor Corporation, 1 Depot Plaza, Mamaroneck, N. Y., manufacturer of "Fire-Lik" wetting agent cartridges and automatic mixers, has announced a new portable wet water mixer.

The new portable unit, No. 200, can be used wherever water is available from a pump, booster tank, hydrant or other water supply. It can be used with 1½-inch or 1-inch hose.

As in its other models, the mixer consists of a lucite cylinder with cast metal ends. Proportioning of the "multiphase" wetting compound is partly by dissolving and partly by the cutting action of the incoming stream. The cartridge composition and the design of the mixer are such that proper proportioning results.

New Transistorized Megaphone

First use of the transistor in a portable power megaphone is announced by the Antrex Corporation, 134 N. LaSalle Street, Chicago 2, Ill.

Called "Giant Voice," it is claimed that the new unit amplifies speech without distortion and projects it effectively over a maximum range of nearly 4,000 feet.

According to the manufacturer, designing an amplifier for the megaphone around transistors instead of conventional vacuum tubes gives extremely high resistance to shock and greater undistorted power output, with consequent greater range than any comparable unit now on the market.

Other features include a convenient volume control, and a pistol grip with

Continued on page 253

YOU EXPECT THE BEST FROM AKRON BRASS

– here it is . . .

Entirely New

PDQ®

FOG NOZZLE

★ Resilient rubber bumper for protection against damage

★ Corrugated no-slip grip

★ Adjustable through all angles of fog

★ High gallonage

★ Positive stream positioning — by feel or sight. Clicks into fog patterns or straight stream

★ Easy pattern indicators

★ Swivelling "Rocker Lug" base — handle is always on top

★ Akron quality ball shut-off

★ You too will agree — finest nozzle of its type

★ Man-size handle

PERFORMANCE DATA
at 100 P.S.I. Nozzle Pressure

STYLE	SIZE	GPM	PRICE PB	PRICE CP
1209	¾"-1"	24	$67.50	$72.00
1218	1½"	95	72.00	76.50
1219	1½"	125	72.00	76.50
1229	2½" for PP	250	78.50	84.00
1239	2½" Dir. Con.	250	92.00	97.50
1249	2½" with PP	250	102.00	115.50

AKRON BRASS

FIRE FIGHTING EQUIPMENT

Akron Brass Mfg. Company, Inc. • Wooster, Ohio

FALSE ALARMS

The "Monroe" Doctrine

Kinkchaser wants to know if anyone ever looked at the date on those Marilyn Monroe calenders?

He: "Dear, I just insured myself for $20,000, so if anything happens to me, you and the children will be taken care of."

She: "That's nice. Now you won't have to go see the doctor every time you feel sick."

Things hadn't been going so good domestically for Fireman Playpipe. His friends suggested he see a marriage counselor, which he did.

"When I was first married," said the unhappy spouse, "I was happy. I'd come home late at night. My dog would race around barking and my wife would bring me my slippers. Now, after ten years of married life everything's changed. When I come home my wife barks at me and my dog brings my slippers."

"Well, what are you complaining about"? said the marriage counselor, "you're still getting the same service, aren't you?"

Then there is the one about the plumber who left the party and climbed into a cab.

"Take us home," he told the cabbie.

"Where's your girl friend?" asked the cabbie.

"Oh gosh!" replied the plumber, "I've gone and forgotten my wench."

He: "What do you want to drink—beer, wine or whiskey?"

She: "Haven't you any water?"

He: "Sure—but where's the fire?"

The Flirt's Motto

Enjoy each love as it happens
And remember this when you're vexed:
Never return to your first love
And always be true to your next.

Kinkchaser took his family with him to the state firemen's convention. At 4:00 a.m., little Booster woke up and asked his mother to tell him a story.

"Be quiet, honey," said Ma Kinkchaser, "Pretty soon daddy will be home and tell us *both* a story."

You've heard the one about the fire fighter who was so stunned when his wife had quadruplets he ran out and bought a fifth?

Then the fight started:

"I didn't say you were ugly, I just observed that you stretched your bathing suit in the wrong places."

Two of the Brothers stood at the bar watching the approach of an old crony. "I don't know what's been happening to Pete lately," said one of them admiringly, "He's getting quite a spring to his stagger."

Texan (home from a vacation trip out of the state) "Ahhh! Doesn't the old bus ride nice, now that we've got the tires filled again with this wonderful Texas air?"

Instructor: "If one and one make two, and two and two make four, how much do four and four make?"

Proby: "That isn't fair, you answer the easy ones and leave the hard one for me."

Then there's the one about the chief of police who caught one of his pavement pounders with a bottle in his pocket. The local newspapers blasted out with the headline *"Corn on the Cop."*

A long line of men stood in the office waiting to sign up as aviation cadets. One of them decided to take matters into his own hands, so he approached an old army flyer who was standing nearby and asked him how he should go about it.

"Do you smoke?" asked the veteran flyer.

"No."

"Do you drink?"

"No."

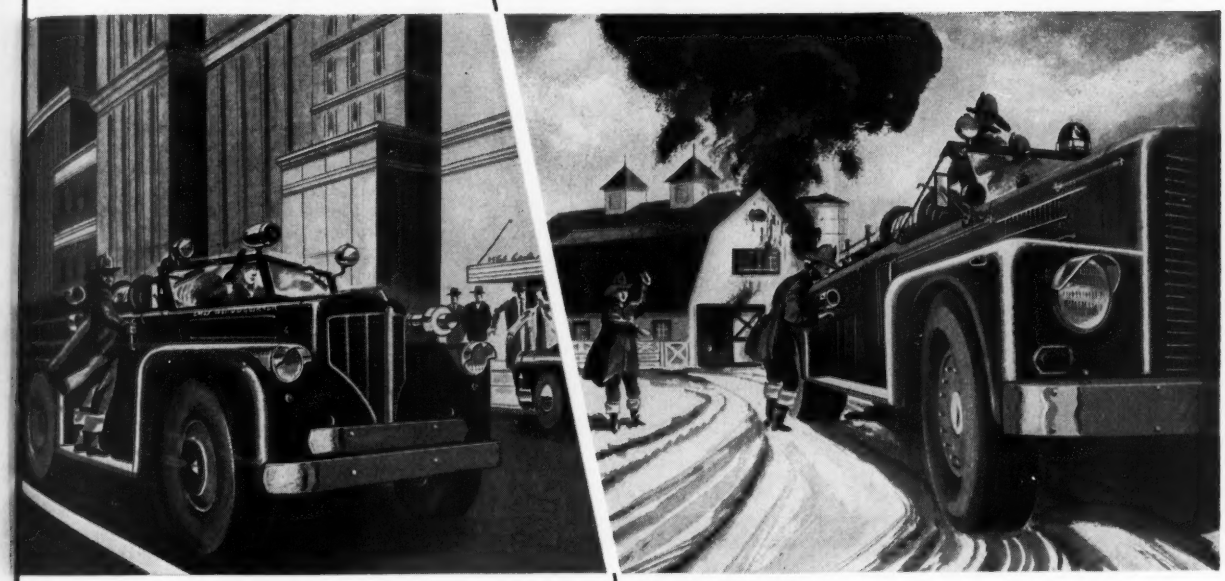
"Do you go out with women?"

"Absolutely not."

"Then why study aviation," said the old flyer, "You must have wings already!"

There was a young guy named Malone
Who was cleaning his shirt at his home;
He used gasoline—
That's the last that was seen
Of Malone or his shirt, or his home!

for power to spare
on the way... at the fire...



Specify Leece-Neville
ALTERNATOR SYSTEMS!

Two-way radios, sirens, warning lights, rescue equipment—all combine to place a heavy load on your apparatus batteries. More of a load than the batteries can handle—*unless* you've installed Leece-Neville alternator systems!

Because they produce charging current *as soon as the engine starts*...enough to handle two-way radio transmitting loads...Leece-Neville alternators keep batteries charged . . . ready for fast, sure emergency starts in coldest weather!

And, high speeds can't damage L-N alternators ...they're designed for operation up to 12,000 rpm! What's more, L-N constant voltage level control assures peak radio performance . . . lengthens life of radio components.

Leece-Neville alternators, the original ac-dc generating system, have been used since 1946 as standard generating equipment on hundreds of fire apparatus fleets, both large city and rural volunteer departments. On any type of apparatus, large or small, L-N alternators will set new standards of performance while reducing operating and maintenance expense. For all the facts, see your local L-N distributor or write direct to The Leece-Neville Company, Cleveland 3, Ohio. *Distributors in principal cities . . . service stations everywhere.*

plenty of 110 volt power, too!

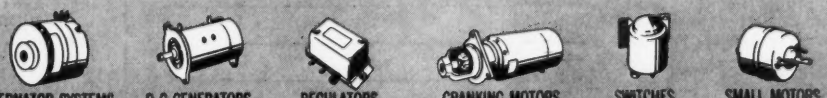
For abundant 110 volt power to operate floodlights, power tools, rescue equipment, etc., install a Leece-Neville 110 volt transformer and rectifier in conjunction with the alternator. Ask for special bulletin.

AA-4295

YOU CAN RELY ON Leece-Neville

Automotive Electrical Equipment Since 1909

TRUCK • BUS • DIESEL • INDUSTRIAL • PASSENGER • RAILROAD • MARINE • OFF HIGHWAY



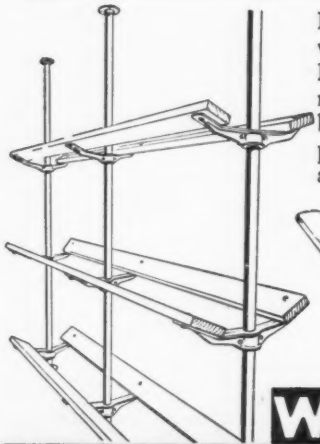
ALTERNATOR SYSTEMS · D C GENERATORS · REGULATORS · CRANKING MOTORS · SWITCHES · SMALL MOTORS

BEST SOLUTION TO YOUR HOSE STORAGE PROBLEMS

Photo Courtesy Wichita Fire Station No. 1

BUILD YOUR OWN RACKS WITH LOK-TITE BRACKETS

SIMPLE INSTALLATION	EASY ADJUSTMENT	BIG LOAD SUPPORT
Ceiling Flange 1½" pipe supports LOK-TITE BRACKETS Floor Flange	2 x 6 stringers bolt to the bracket LOK-TITE BRACKET bolts to pipe support at any height	Pipe and stringers will fail before the brackets slip



Protect your hose with ample ventilation. Provide quick, easy access for use and inspection. Promote good housekeeping and make the most of your storage space, by planning and building your own racks – from new or used pipe and lumber, and handy, sturdy, fully adjustable Lok-Tite brackets.

Lightweight, high-strength aluminum alloy Lok-Tite brackets – designed for easy installation.

$3.65 F.O.B. WICHITA

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Please ship_____brackets via

☐ express ☐ freight ☐ truck

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Among the Buffs

By Paul C. Ditzel

THERE IS, AS FIRE BUFFS KNOW perhaps better than anyone else, a romance to fire fighting unlike the tradition of any other aspect of our history. Nowhere in the world has any fire service a lore quite like that of the United States. It's a story that many have tried to tell, some have done fairly well at it, others have become hopelessly entangled in the myriad of facets to this tale.

Comes now an ambitious volume by Dr. Robert S. Holzman, well-known New York City buff, entitled "The Romance of Firefighting," published by Harper & Brothers, New York, at $7.50.

The publishers kindly sent me a review copy of this book which should be of intense interest to those of you who specialize in the early days of the hobby. Basically, Dr. Holzman's work is a pictorial history and as such tells fire fighting history in photos and short texts from the colonial days up to the present.

The book is chock full of action pictures, some of them woodcuts; others are lithographs and prints. Unquestionably, the highlight of this excellent book are the four pages of full-color Currier & Ives scenes from "The Life of The Fireman" series. Several pages of color photos of modern fire equipment can only be considered a bonus feature in light of these Currier reproductions.

This book is a must for all buff club libraries and individual fire fans, too, who steep themselves in the glorious days of fire fighting. Too, it's heartening to see a publisher willing to tackle a project such as this in these days of high publishing costs where every book is a major gamble. Dr. Holzman's story is one that needed telling and future historians will have to go some to equal this book.

Lots of mail came in during the past month and I regret that space doesn't permit detailed mention of all of it, especially Demon Fire Alarm Pounder Phil McMahon's report from Chicago on the grain elevator fire and of even greater interest, the CFD's annual report. The report is the best of its kind I've ever seen from any department, anywhere.

Department Of Now I've Seen Everything: From the Los Angeles Fire Department's Weekly Bulletin of Tuesday, January 15, 1957: "At the Staff Meeting, January 8, 1957, it was agreed that the use of electric blankets will be allowed in fire stations where adequate electrical facilities are available. Members using electric blankets must sleep on beds close enough to the electrical outlets so that blanket cords may be connected directly without use of extension cords."

Wait'll my pals back in Chicago's Engine 98, Squad 3, Engine 50, Ambulance 4 and Squad 8 read THAT!

What may be a good idea for fire prevention work—comes from the Silver Spring (Maryland) Volunteer Fire Department. They sent me a 1957 calendar in red-and-white with fire safety slogans

for each month. Their telephone number for emergency calls appears at the bottom.

Incidental Information You'll Find Nowhere Else But In This Column: Baltimore's Box 414 Association served 24,143 cups of coffee, 7335 cups of hot chocolate, 4900 cups of cold orange drink, 942 sandwiches, 580 dozen buns, 1240 cups of soup and put in 384 hours of service with their coffee wagon in 1956.

Incidentally, the Central Alarmers, Inc., 1020 Regester Avenue, Baltimore 12, Maryland, are out with their first issue of their new news bulletin, and from the looks of the bulldog edition they'll be giving their brother buff writers at Box 414 a run for their money. The Central Alarmers operate a coffee wagon for the use of the Baltimore County Fire Department. They've also got a mutual aid plan with Box 414.

The Central Alarmers report an interesting trick for getting on deck in a hurry. The Towson firemen, when they don't respond to an alarm which calls out the CA's, load the canteen, warm up the motor and have everything ready to roll by the time the Central Alarmers show up to respond.

The Boston Sparks Association, 112 Dartmouth Street, Boston 15, Mass., are sparking up their regular meetings by showing color slides of recent fires. They hope this added attraction will stimulate meeting attendance. This is a problem all clubs face and we'd be interested to hear from other clubs who have faced and solved this problem.

We've run out of hose line again. The station remains the same, however: 4234 Don Diablo Drive, Los Angeles 8, Calif.

Cabinet Status Sought For Civil Defense

A bi-partisan drive has begun in Congress to give Cabinet status to the Director of Civil Defense. Rep. Chet Holifield, D. Calif., announced that his House Governmental Operations subcommittee will hold hearings on the legislation.

Under the present plans the Federal Civil Defense Administration, now headed by Val Peterson, would be transformed into a regular department headed by a Secretary of Civil Defense. That would increase the President's cabinet to eleven members.

The legislation is sponsored by seven of the eight members of the committee.

Volunteer Company Celebrates Golden Anniversary

The Garrettford-Drexel Hill Fire Company celebrated its Golden Anniversary on February 9, 1957. A dinner and show was held to commemorate the event in the Yeadon Borough Hall.

The special guests of honor were Frederick Theurer and Joseph A. Fielding, charter members of the fire company. Mr. Fielding has been financial secretary of the organization since its inception in 1907.

Edward Sprangers

no pumping...
positive control!
NEW
BUFFALO
pressurized
V.L. EXTINGUISHER
Because they're pressurized you can fight fires faster and more accurately! With no pumping, simple one-hand operation puts all the flame-killing liquid where you want it. Simply raise the carrying handle and depress the valve. A powerful, easy-to-control, 30 foot stream expells in 17 to 25 seconds if valve is held down constantly, intermittent operation is also easy if desired.
One and two quart Buffalo "VL" Extinguishers are of dependable all-brass, precision construction. Entire valve assembly and pick-up tube unscrew as a unit from the shell for inspection, cleaning and recharging. Teflon Gaskets assure a positive, leak-proof seal to hold pressure. Stream is expelled by pressurized nitrogen or air. Available with either Carbon Tetrachloride or Bromochloromethane. Buffalo V.L. Extinguishers are Underwriters' Laboratories and Factory Mutual approved.
BUFFALO FIRE APPLIANCE
CORPORATION
DAYTON 1, OHIO
ESTABLISHED 1895
BUFFALO better built
PRESSURIZED FIRE EXTINGUISHER
TO OPERATE
WARNING
MAINTENANCE
TO RECHARGE
BUFFALO FIRE APPLIANCE
DAYTON 1, OHIO
ORDER BUFFALO
FIRE PROTECTION FROM YOUR
INDUSTRIAL DISTRIBUTOR TODAY!
he's listed in the yellow pages
BUFFALO
better-built
the right extinguisher for every fire hazard . . . plus a complete line of brass goods and hose

There's nothing like the Pacemaker GRAPHIC'S BIG NEGATIVE

ACTUAL NEGATIVE SIZE IS 4"x 5"

The "Big Negative" is the big reason why the Pacemaker Graphic is best suited for fire work. Its jumbo 4" x 5" size permits critical enlargements of the entire negative area or sections thereof with a minimum of grain. The result is an amazing brilliance and clarity of detail not possible in smaller size film. No special care is required in processing, either, since sheet film has a tough, heavy film base that withstands rough handling. Sheet film can be processed individually, developed in a variety of ways, and is available in over 40 different black and white and color emulsions for the widest latitude in film selection.

In addition, the Pacemaker Graphic offers the widest range of versatility in photographic techniques, with three types of focusing, three types of viewfinding, three types of flash synchronization, and three types of shutter release.

You'll find the Pacemaker Graphic the ideal camera for use at the fire scene; in training; demonstration of equipment; fire prevention; suspected arson; and all other departmental activities.

GRAFLEX® *Prize-Winning Cameras*

70th Anniversary—1887-1957

For further information see your local Graflex Dealer or write Dept. FE-37 GRAFLEX, INC., ROCHESTER 8, N. Y.

A SUBSIDIARY OF GPE

World-Wide Fire News

Tactical Weapons Test

The Atomic Energy Commission is setting up a new series of atomic tests, presumably to include such defense weapons as nuclear anti-aircraft missiles and artillery. The new series will involve "low yield nuclear tests" according to AEC.

This means that explosions will be limited to detonations of not more than 30 kilotons (a kiloton is the equivalent of the energy released in explosions of 1,000 tons of TNT).

The Commission, sensitive to concern over radiological fallout from nuclear explosions, emphasizes that "tests of high yield devices are not conducted at Nevada." A "high yield" explosion is of H-bomb proportions, producing forces as high as 17 million tons of TNT.

Giving primary attention to tactical, rather than massive strategic-type weapons in the new series is pointed up by statements of President Eisenhower in his recent budget message that during the new fiscal year emphasis will be placed on weapons for tactical purposes, and the recent AEC announcement that in the new series "development of weapons for defense against attack is a major objective."

Production Continues in Jaguar Works

On February 12, 1957, a $10,000,000 fire destroyed almost one-half of the Jaguar Cars Ltd. factory at Coventry, England. A carelessly dropped cigarette was blamed for the fire that started at dusk in the tire department. About half of the 1,000,000 square foot plant was leveled before firemen brought the blaze under control. While the flames were being fought executives, clerks, office girls and workmen pushed 400 cars out of the factory to safety.

By February 18 an improvised assembly line was in operation and cars were being produced at the rate of 100 per week. Company officials expected that the plant would be operating at 50-percent capacity within two weeks.

A-Shelter Plan Up Again

Congress has received a plan from Navy experts for a shelter program to give every American a 99 per cent chance of survival in an enemy attack. The cost is reported to be "about as much as is spent each year on national defense." The next year's defense budget is $38 billion.

Experts told a House government operations subcommittee, "Everyone in the United States should have a shelter providing security against radiation and minimum protection against blast and heat. The cost would range from about $60 per person for the radiation shelters to not more than $300 a person for

shelters designed to withstand anything but a direct hit."

A witness said, "It takes three feet of earth or 19 inches of concrete to provide a necessary radiation shield. Such a shelter also offers a minimum protection against blast."

Chances of favorable government action on the proposal appear dim.

Thirty-One Die in Kowloon Fire

In what is said to be the most serious fire in the British Crown colony of Hong Kong in recent history, at least 31 Chinese were killed and 58 persons reported missing.

The pre-dawn fatality occurred when fire swept a four-story block of tenements in Kowloon, the mainland sector of Hong Kong. Cause of the fire was not disclosed.

Purdue Announces 13th Annual Arson Seminar

The Public Safety Institute of Purdue University will hold the 13th Annual International Arson Investigator's Seminar beginning April 29, 1957 and continuing through May 3rd. The five day intensive training program is sponsored by the Institute in cooperation with the International Association of Arson Investigators and many national and state agencies interested in arson prevention and detection.

The seminar will be held in the Memorial Union building on the campus at Lafayette, Ind. It will feature the nation's outstanding lecturers on the subject and will provide training for new enrollees, advanced investigative techniques, and a review of the latest laboratory aids in the detection, apprehension and prosecution of the arsonist.

For information concerning the seminar contact Professor Shelby Gallien, Seminar Director, Public Safety Institute, Purdue University, Lafayette, Indiana.

Queens College Offers New Courses

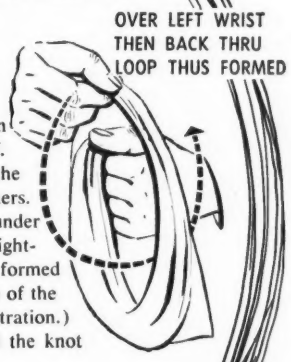
Two new courses have been added to the program in Fire Administration offered by the Queens College School of General Studies, New York City. "Chemistry for Fire Department Personnel" and "Psychology of Leadership for Fire Department Personnel" were announced for the spring semester.

Also given during the spring semester will be, "Fundamentals of Fire Administration, Fire Company Administration, and Hydraulics for Firemen."

IAFC In New Office

The International Association of Fire Chiefs has moved its executive offices to new and larger quarters. The new office address is, Suite 1306, 232 Madison Avenue, New York 16, N. Y. The new telephone number will be Murray Hill 3-7287.

a trick for your friends



Try this trick—it is one of the most deceptive of all handkerchief tricks. You have a handkerchief which is apparently tied in a knot, but the knot dissolves when you pull the ends of the handkerchief.

THE SECRET?—To tie the knot, hold the handkerchief by diagonally opposite corners. Loop the end held in your right hand under and then back over your left wrist. The right-hand end is next put thru the loop thus formed from the outer side, i.e., from the side of the loop away from the body. (See illustration.)

Finally you pull the ends and the knot will vanish.

a treat for yourself

Treat yourself to a fabulous *HI-GLO* badge. *HI-GLO* is that new (almost magic) metal developed by BLACKINTON to give you fine quality badges that you can POLISH - POLISH — POLISH. It will never lose its golden finish, retains its shiny new look for the life of your badge. Polish it as hard and as often as you like. *HI-GLO's* lustrous finish remains on and on.

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BLACKINTON badges are furnished nationally through equipment suppliers and uniform manufacturers.

Persons in the News

Veteran Chief Houston Retires

Barney J. Houston, dean of fire chiefs of the nation's metropolitan cities, who has held office of Chief of the Cincinnati Fire Department for over 40 years, will retire April 1, 1957.

He was appointed to the department as a regular fireman, September 6, 1906, promoted to hose wagon driver; then superintendent of fire prevention in 1914 and to chief of department, July 1, 1916.

"Barney," as he is affectionately known to his legion of friends in the nation's fire service, and to Cincinnati municipal officials and others, upon elevation to chief assumed command of an extremely low rated organization and over the years brought it to a Class 2 Underwriters national classification. When he took office there were only two pumpers in the department.

Under his aegis, it is said, Cincinnati has won more fire prevention honors, including Fire Prevention Week awards, than any other city of its size.

Chief Houston has weathered many political storms, including that which eventuated with the change from a political type government to the city manager form. He has served with distinction under all of Cincinnati's city managers. During that time he has kept his department void of politics. without ever losing stature as its administrative head. His presence, and that of his charming wife, always lent special significance to the International Association of Fire Chiefs conference, which he attended for over 30 years.

Although a stickler for discipline, his fairness and loyalty to his men were legion. It is said he could call every man with whom he came in contact by his name, or nickname if he had one.

Chief Houston directed operations at most of Cincinnati's big fires over the past quarter of a century, being injured several times in the operations.

Chief Houston will be succeeded by Dan F. Vogel who has been serving as assistant chief of the Southern Division.

Chief Vogel joined the fire department on October 16, 1933, was elevated to lieutenant in 1937, to captain in 1939, to marshal in 1943, and to assistant chief in 1951.

Here's a break for hard-working firemen!

Dragon® Fire Pumps are designed with the fireman in mind . . .

1. They come completely assembled in a special carton. Just lift out the pump . . . fill with water . . . go into action!
2. The special Dragon harness is easy to get into and designed so the pump rides high where it can't throw the fireman off balance or interfere with walking.
3. Just a few easy strokes of the pump lever gives the operator a *continuous* flow of water he can direct right where it does the most good. And a mere twist of the shut-off nozzle gives either solid stream or spray *instantly*.
4. When he is using a Dragon Fire Pump, the fireman can take his hands off both shut-off nozzle and pump lever to use rake, shovel, or other tool.
5. There's no pump packing to dry out: even after standing idle for long periods, a Dragon Fire Pump is ready for instant use.

Yes, the way to boost firefighter efficiency and cut down fatigue is to specify Dragon Fire Pumps →

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Kress Named Training Chief of Philadelphia

Battalion Chief Ralph E. Kress has been named director of the Philadelphia Fire Training School. He succeeds former Battalion Chief Joseph Meskill, who resigned recently after 21 years' service to become fire prevention and protection specialist at the General Electric Company missile and ordnance systems plant in Philadelphia. Chief Meskill headed Philadelphia's fire training for seven years.

Chief Kress joined the fire department in 1940. He was promoted to lieutenant in 1948, captain in 1953 and chief of the third battalion in 1955.

Tanguay Chief In Nashua

Albert L. Tanguay has been named Chief of the Nashua, N. H., Fire Department, succeeding Anthony J. Molloy who retired February 1, 1957. Chief Tanguay advanced to the position from the post of deputy chief-drillmaster.

Gilbert Chief Of San Jose

Arthur J. Gilbert was named Chief of the San Jose, Calif., Fire Department on January 1, 1957. Chief Gilbert succeeds L. A. O'Brien who retired after more than 30 years of service.

"Andy" Flanagan Retires

Andrew J. Flanagan, battalion chief-drillmaster of the New Haven, Conn., Fire Department and deputy Civil Defense director of the City of New Haven, retired on January 30, 1957. A veteran of 25 years of service, he had received four commendations from the city during his distinguished career.

He was appointed to the department in 1931, promoted to lieutenant in 1942, to captain in 1945 and battalion chief in 1951. In 1946 he was named assistant drillmaster and became drillmaster in

1953, succeeding Thomas J. Collins who had been named chief of department.

Chief Flanagan has accepted a position with the Pratt and Whitney Aircraft Corporation and will be associated with the company's fire fighting forces in the Hartford area.

Arnold Retires From N.B.F.U.

John H. Arnold, assistant chief engineer in charge of the Chicago office of the National Board of Fire Underwriters retired March 1, 1957. He will be succeeded by George Tatnall.

Mr. Arnold joined the National Board in 1920 and has engaged in municipal fire protection since that time.

Mr. Tatnall joined the Board in 1924 after graduating from Worcester Polytechnic Institute and has specialized in municipal fire protection during his career with the National Board.

W. V. Mendenhall Retires

William V. Mendenhall, supervisor of the Angeles National Forest in California for the past 27 years, and a veteran of 46 years with the U. S. Forest Service, retired on February 1, 1957.

Mr. Mendenhall pioneered the use of the helicopter in fighting forest fires in 1946 and has been closely identified with the recent use of crop-spraying airplanes for water and chemical solution attack on forest fires.

He is known as the godfather of "Smokey Bear," the symbol of the Forest Service in the nationwide forest fire prevention campaign.

New Jersey Fire Chiefs Elect Officers for 1957

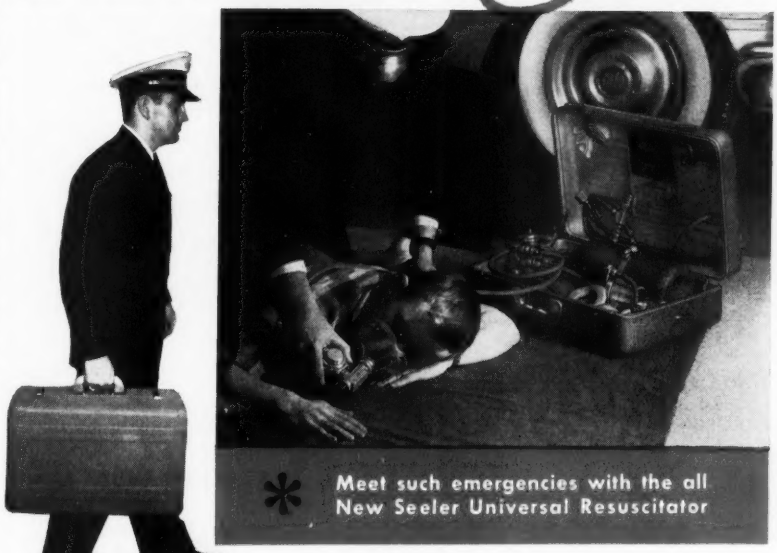
The New Jersey State Fire Chiefs Association held its first meeting of the year on Saturday, January 19th, at Newark. Chief Engineer Harry J. Sommers of the local department acted as host.

More than 300 members and guests attended the affair which was held in the auditorium of P. Ballantine and Sons. James T. Owens, director of the Newark Fire Department, welcomed the assembly and Regional Civil Defense Director David Slayback delivered the major address.

Officers elected for the year are: Chief Arthur W. Bilby, Montclair, president; Chief William G. Wandras, Kearny, vice-president; Ex-Chief Clarence Dougal, Livingston, secretary-treasurer.

New officers of the New Jersey State Fire Chiefs Association. Left to right are Former Chief Clarence Dougal, Livingston, secretary-treasurer; Chief William G. Wandras, Kearny, vice-president; Chief Arthur Bilby, Montclair and Chief Louis Zimmer, Maplewood, installing officer

HOW ARE YOU EQUIPPED FOR THIS EMERGENCY



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CORNCOB FIRE

Continued from page 229

ued to gain ground. Hose streams concentrated at one point for several hours would be shut down, and the fire would immediately burst out again. At other times, gas pockets would flare up at considerable distances from the main body of the fire, and smoke and gases issued from all sides of the pile.

On December 7, the first official meeting between Quaker Oats Company officials and the fire department staff officers was held at the plant. We mapped out plans for obtaining additional equipment and manpower. We ordered the water supply to be surveyed as to capacity, flow and pressures. At the same time, the health department made their own survey of the situation to determine if any public health menace existed.

Smoke conditions over much of northeast Memphis were heavy at times, but the smoke and gases were not dangerous, although they were a continual annoyance to residents of the city and county who could smell the burning cobs miles from the plant.

Plant reinforces fire fighters

On the morning of December 9, the Quaker Oats Company put 60 additional men at the disposal of the fire department. At the same time, we increased the number of bulldozers and had three draglines working 24 hours a day moving the entire pile.

We supplied the Quaker Oats employees with hose, nozzles and other equipment, brought in heavy stream equipment and other apparatus. We had one pumper supplying three lines of hose which were connected to the plant siamese to supplement the plant's own 1,000-gpm fire pump and reservoir.

By doing this we were able to obtain just over 1,200 gpm at 28 pounds residual pressure in the cob pile area, and still were able to maintain sufficient volume and pressure throughout the rest of the plant for fire protection.

Operations consisted of using the draglines to pull down the pile, and then having the bulldozers spread the burning and smoldering cobs out on the ground so that they could be thoroughly soaked. Hose streams were alternately used to knock down the surface fire on the pile and to cool down the burning pockets and craters as they were uncovered.

All during this of time, we worked in close harmony with officials of the Quaker Oats Company and conferred with them regularly on the actions we were taking to control the fire. They gave us every assistance and cooperation we asked for.

On December 13, we recommended that two 1,000-gallon diesel-driven fire pumps be brought in to replace our pumpers, some of which had been operating for almost two weeks. The next day plans were completed and the pumps rented by the Quaker Oats Company.

One of these was connected to a city hydrant and replaced a fire department pumper which had been pumping continuously for over 130 hours. The diesel pump supplies 1,269 gpm at 140 pounds pump pressure. This water was pumped into the plant system through six lines of hose and special connections which had been made at the plant.

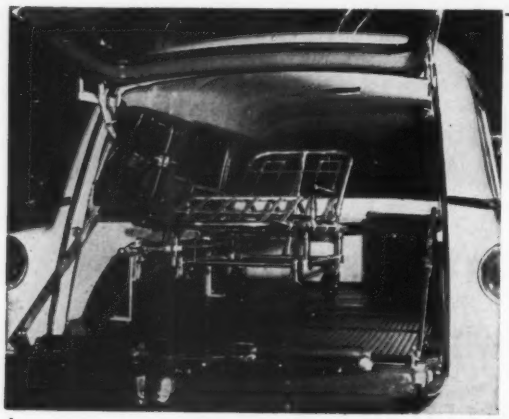
The second pump was connected to a deep well close to the cob pile and discharged 1,000 gpm at 150 pounds pump pressure through a special header which we placed on the pump. Six lines were connected to the header to supply additional hose streams.

By using the two diesel pumps, we were able to obtain 2,000 gpm at the pile. Once these pumps were in operation, the fire department pumpers were shut down and put on a standby basis.

Moving the pile and wetting down continued until December 18. By this date, the fire had been reduced to a point where the hose lines could move in very close. The pile was also spread out enough for the bulldozers to operate directly on the pile. This speeded up operations considerably.

Special nozzles help

We used specially-built spear-point nozzles with dual heads to apply water to the subsurface fire. The nozzles were placed directly on the pile and forced down into the cobs to a depth of from



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Two-level elevating ambulance cot, Model 52—A Washington exclusive design.

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Fold-A-Way emergency stretcher, Model 18. Light and compact, folds easily.

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5 to 6 feet. We found this method to be very effective in putting out the subsurface fire in craters and hot spots.

Gradually the pile was pulled down and spread out over several acres and by Christmas morning, we considered the fire fully under control and withdrew most of our men and equipment.

At no time during the period of the fire, 23 days, was the city left without adequate protection. We used mostly spare equipment at the plant, once the scope of operations became apparent. These spares were 1,000 gpm pumpers, supplemented by an extra salvage corps truck, rescue squad truck and one first-line pumper.

When we did need first-line equipment, it was sent to the fire and its station immediately filled with a spare piece of apparatus, or another company covered up for it.

Some of the statistics on this fire may be of special interest. For example, the rescue squad used a total of 511 cubic feet of oxygen for first aid treatment. We also used 4,695 gallons of gasoline and 88 gallons of oil. Seven pumpers operated at the fire a total of 955 hours and 15 minutes. □□

This interesting factual account is taken from a paper delivered by Chief Klinck before the Twenty-Ninth Annual Fire Department Instructors' Conference held in Memphis, February 19-22. Photos used to illustrate the story are by the Memphis Fire Department Photo Unit.

Suffolk County, N. Y. Field Conference

The Third Annual Field Conference of the Suffolk County, N. Y., Fire Chiefs' Council will be held at the Suffolk Air Force Base on May 26, 1957.

Cooperating agencies include the Suffolk County Vocational Education and Extension Board and the personnel of the Air Force Base. For further information contact Ernest G. Wilcox, P. O. Box 125, Smithtown, L. I., N. Y.

New York State Instructors Conference

The Ninth Annual Fire Instructors Conference sponsored by the New York State Division of Safety will be held in Plattsburgh, May 20-24, 1957. The five day session will introduce new courses in Aircraft Crash Fire Fighting and Arson Detection and Investigation. Both of the courses will become part of the graduate training to be offered to firemen in the State.

Plattsburgh was chosen as the site of the conference in order that the instructors could avail themselves of the facilities and staff of the 820th Air Base Group (SAC) which maintains its headquarters in that city. Qualified instructors of the Base Fire Department will present the training.

The emergency truck is called out in all kinds of weather. That's why a speaker mounted on it must be rugged, weatherproof and dependable. The University Model PH has joined many fire departments throughout the country and is rendering faithful service in times of disaster.

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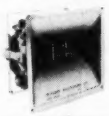
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Yes — the groping hook of the famous PORTER FIREMAN'S CUTTER guides smoke-hidden "live" wires into the center cut cutting jaws, when time can mean lives and property saved. Other great features include hot-molded, special semi-hard rubber (Co-hardite) insulation for handles, giving tough resistance to oxidation and chemicals, and high dielectric strength. Each tool factory tested to 20,000 volts. Two sizes — 5/16" and 3/8" wire capacities.

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Cuts time of chain repairs to a minimum. Opens and closes links in seconds, with powerful alloy steel, drop-forged, heat-treated jaws. No lugging chains to workbench — just spread on floor, and work standing up. Handles links up to 13/32" diam.

HAVE YOU "DISCOVERED" THE PORTER POLE PRUNER — for EMERGENCY CUTTING OF WIRES AND TREE BRANCHES.
When you write for literature on the PORTER FIREMAN'S CUTTER and other tools shown above, ask us to send data on the PORTER RJ3 — 16 FOOT POLE PRUNER, which is becoming the firefighter's preferred tool for hard-to-reach, emergency wire and tree limb cutting.

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the round table

discussion of current fire department and fire management problems

Issuing Summonses or Traffic Tickets

THE GENERAL INCREASE of vehicular traffic on the streets and roads of this country has had a serious impact on the response of fire apparatus. It has also proven a factor to be reckoned with on the fire ground where parked vehicles or curious motorists may impede or interfere with the operations of the fire department.

A second consideration at the fire scene is interference by spectators or bystanders with the actions of the firemen. This type of interference may not be a frequent happening, but it can be very irritating to busy firemen and at times may impede the successful extinguishment of a fire.

In the past, most fire departments have relied on the local police to apprehend violators of the common laws and ordinances pertaining to fire operations. In some areas it has become evident that expansion of the police service, in common with the fire forces, has not kept pace with the community growth. As a result, policemen are spread over a much greater area and may not be readily available when needed at a fire scene.

To overcome this handicap, some communities have vested in the fire department the right to issue tickets or summonses for violations pertaining to their operations.

To sound out the thinking of representative fire chiefs FIRE ENGINEERING posed four questions on the subject.

THIS MONTH'S QUESTIONS

Do members of your fire department have power to issue summonses relating to: (a) traffic or (b) interference, or other actions on the fire ground?

If so, who must issue summons (a) officer (b) chauffeur or driver (c) any fireman?

Is the assistance of the police department or traffic officer invoked in any way in issuance of summons, and prosecution of offender?

What is the procedure followed in issuing (a) traffic summons (b) other (such as interference with firemen in performance of their duty, etc. as distinct from fire prevention violations). Please explain steps taken.

The first returns indicate that many fire departments do have the power of arrest vested in their personnel and may issue summonses for infractions of the laws. A greater number do not have such powers and must rely on the police for action on complaints. It is interesting to note that some fire chiefs who have the power of arrest still prefer to handle any infractions through the police rather than by direct personal action.

Readers are invited to join in this discussion which will be continued in the April issue. Address replies to the Round Table Editor, FIRE ENGINEERING, 305 East 45th Street, New York 17, N. Y.

Discussion of the Question

C. L. Cox, Chief, Durham, N. C.: Generally the police take care of preventing automotive equipment from coming into the fire area and also prevent pedestrians from crowding in near the scene of fire operations by roping off the area and patrolling constantly.

However, the following is contained in the Ordinances of the City of Durham which, if need be, could be carried out:

"It shall be unlawful for any person to ride or drive any vehicle through the streets or other places in which the fire department is assembled for the purpose of extinguishing a fire. It shall be unlawful for persons to congregate in the streets or squares adjacent to the fire so as to interfere with the operations of the fire departmetn. Any person violating this section shall, upon conviction, pay a fine of ten dollars for each offense.

"During the continuance of any fire, the chief or assistant chief of the fire department, or those acting under their authority, shall have the power to call out any and all persons to assist in extinguishing the fire, or in pulling down or blowing up any building, or in removing any building or goods or furniture from any building on fire or in danger to some place of safety, or to assist in making arrests. Any person failing to obey any order given for any of the purposes aforesaid shall, upon conviction, pay a fine of ten dollars for each offense."

"The persons exercising the duties of firemen shall have power, and are hereby authorized, to make arrests during fires, for interference with or obstruction of their operations."

A. Boyd Arnold, Chief, Mason City, Iowa: After confering with our city attorney, it was decided that the chief of

department or the firemen do not have authority to issue summonses. Our city ordinances do give the chief of department, or his assistant in charge at a fire, broad authority over the fire scene and the persons at the scene. However, no authority is given to make arrests or issue summonses.

At least one police officer answers all fire calls and directs traffic and takes care of any police help we may need. If there is a traffic summons or other summons issued, the police officer does this and the offender is required to appear in the police station where he is required to put up bond for appearance in police court. The offender then appears in court and if he pleads guilty, is subject to the police judge's decision. He may plead not guilty and have a trial. If so, the police judge sets bail and the time of hearing when he will be given a jury trial.

The above arrangement has worked out fine for us, and we have the best cooperation from the police department.

Franklin S. Janson, Chief, Burlington, N. J.: Under the provisions of Chapter 158-4 of the RSNJ, summonses cannot be issued for traffic or interference. However, it is so stipulated in the law that "any person who unreasonably refuses the orders of the fire police, such fire police may arrest him and keep him under arrest until the fire is extinguished or the drill is completed. If the offender is found guilty by the municipal judge or the county district court, he shall be sentenced to pay a fine not exceeding $10 for cost."

A complaint may be signed by any fire police for any traffic violation or any person who may have become disorderly on the route of travel, that is, from the firehouse to the point of emergency.

Although the members of the police department have always demonstrated their cooperation and will not interfere unless an obvious act has taken place, or a traffic violation was committed in their presence, or if a violation was called to their attention for prosecution.

The procedure followed in issuing traffic summonses is that the fire police will note the registration, and at the completion of the mission, report to the police department, at which point a complaint by the fire policeman will be signed. The police department, in turn, will execute the summons, and a hearing at a later date will be held by the municipal judge as set forth in said summons and complaint. Insofar as interference with the firemen in the performance of their duty is concerned, the violator can be immediately arrested and brought to City Hall, at which point the complaint is signed. A bond can be imposed for his reappearance and a date set for trial, as in compliance with the stipulations mentioned above.

Zenis Mathis, Chief, Atlantic City, N. J.: Any summonses issued for interference with the fire department are given out by the police department. Unless a flagrant violation of traffic rules occurs, it is very seldom that we will have a summons issued.

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NEW HAVEN FIRE

Continued from page 224

and the Connecticut State Police responded with two units.

Chief Collins stated that there was no difficulty with crowds of spectators or with traffic. Chapel Street is an important east-west artery of the city, but it posed only the normal traffic problem. The local police handled both situations without difficulty.

Linemen from the Southern New England Telephone Co. and the United Illuminating Co. assisted the firemen in cutting wires into the doomed building.

The Norwalk Salvation Army assisted the local Salvation Army by sending its canteen unit. The Red Cross, Box 22 Club, restaurants and neighbors in the fire area, also were of great assistance to the fire department.

In less than three hours, the New Haven Department had the fire under control and by 6:00 p.m. that evening, Chief Collins began ordering the companies to pick up and return to quarters. Several watch lines were maintained through the night for cooling down the debris and guarding against rekindle.

Probing into the cause

According to Leo F. Alix, State Labor Department safety expert, the building itself was not considered unsafe; it had more exits than are required under the present laws; there was an adequate fire warning system and the accumulation of "live" waste was not excessive. "Panic was the killer," he insisted. New Haven Fire Marshal Eugene Milligan, although concurring with state experts in saying the building was safe, called for a stricter and more definite code. "If they give me an enabling act, I'll enforce it," he said after the fatal fire.

When labor, fire and other authorities entered the still-standing rear section of the building on January 25, they were surprised to find the rear stairway to the fourth floor in excellent condition.

Mr. Alix said, "I don't know why the workers on the second and third floors didn't go down that way." He noted that women working on the top floor had walked down this rear stairway "without even seeing smoke" and exited without difficulty. "The stairway was wide and clear of debris," he added. According to Mr. Alix, "The women on the second and third floors were victims of panic—and the fact they didn't know what to do. They had three possible exits. The front stairs were blocked by the fire, leaving the fire escape and the rear stairs. For some reason they ignored this available means of exit and they all jammed up on the fire escape."

Investigators are reasonably sure the fire started in the five large containers of refuse near the foot of the center elevator shaft. A carelessly discarded cigarette or match may have started it, but there is no evidence to support the theory.

The Editors Want Photos

FIRE ENGINEERING will pay five dollars for every usable photo print of a working fire, or other incident involving fires, fire fighting operations, firemen at work performing unusual tasks in training, etc. Glossy prints not smaller than four by five inches with complete information concerning the subject pictured, are desired. The publishers retain exclusive rights to publication. Subjects not considered suitable will be returned promptly. Address Editor, FIRE ENGINEERING, 305 East 45th Street, New York 17, New York.

Chief Collins made the following statement after the fire: "People should learn the various means of egress from the building where they are employed. It would be wise to use the secondary means frequently in order to become familiar with them. In an emergency it may mean the difference between life and death. In this case the results might have been avoided had the rear stairway been used." □□

This special report was prepared from information supplied by Chief Thomas J. Collins whose assistance is gratefully acknowledged.

750 Gallon Darley Pumper

The pump is the Darley Champion Type SH750 manufactured exclusively by W. S. Darley & Co. and used on all Champion Fire Apparatus. A 3-stage centrifugal with superior engineering features which guarantee brilliant performance throughout the entire range of pumping requirements for fire fighting.

The SH Series Champions are double duty fire pumps which provide the complete range of volume performance for heavy streams plus the fire smashing efficiency of high pressure fog with 60 gallons per minute at 850 lbs. of pressure at the pump. Actual tests show the SH pump develops pressure to 1,000 lbs.

Write for Fire Equipment Catalog and Fire Apparatus Booklet

AT YOUR SERVICE: Sales and Service Representatives — East, Midwest, North, South

You'll want to know all about our low cost finance plan or combination PURCHASE-RENTAL plan.

W. S. DARLEY & CO., Chicago 12

FACTORIES — Chicago and Chippewa Falls, Wis.

MANUFACTURERS

Continued from page 238

trigger activator. It weighs 6 pounds and the unit adapts easily for mounting outside vehicles or on a stand.

The self-contained power supply is comprised of six standard-size flashlight batteries that last up to six months under normal operating conditions. Diameter of the metal horn is 9 inches; overall size is 9 x 12 x 9 inches.

The new power megaphone is designed to fill a need in such fields as fire fighting and disaster control.

New High Output Alternator

The unique Electrol GenerAC is a high output 60-cycle ac mobile alternator which will produce 3500 watts of 115/-230 volts single phase ac power. According to the manufacturer, the new design employed permits the unit to start and operate motor loads as large as two hp.

The new product is intended as a mobile source of ac electrical power and can be mounted and driven by most truck engines. Appropriate mounting kits are available from the manufacturer.

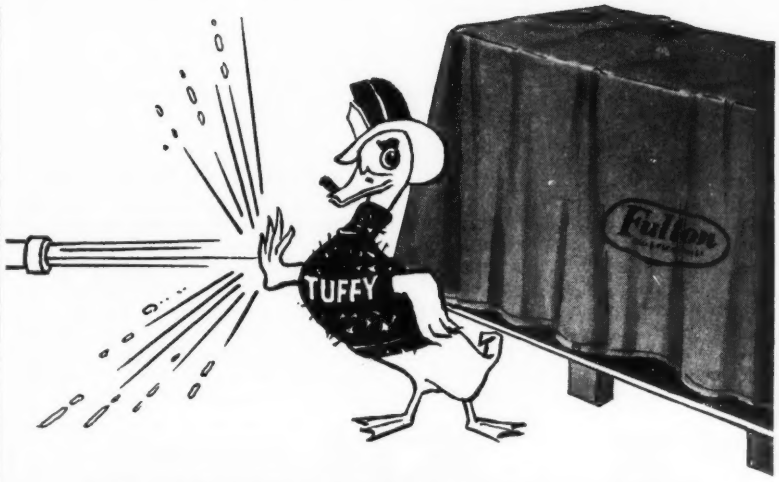
Mounted on fire fighting and rescue apparatus it will operate such equipment as flood lights, portable drills, saws, smoke ejectors, radio equipment and the like.

For further information write to Electric Controls, Inc., Wales, Wis.

Hydraulic-Powered Rescue Kit

The P-F Hydraulic Rescue Kit makes quick and efficient work of freeing trapped victims of accidents and does it in a fraction of the time previously required. Manufactured by H. K. Porter, Inc., Somerville 43, Mass., the kit combines everything needed for quick action and is completely portable, so that it can go anywhere a man can go. It comes in an easy-to-carry metal case and includes a canvas case for carrying over ladders or underground when necessary. It is completely independent of outside power sources.

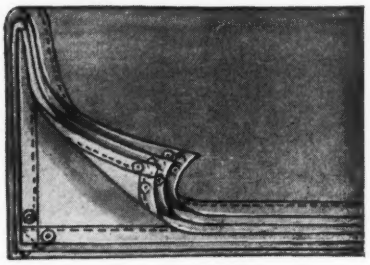
It applies seven and one-half tons of power through the remote-control, self-retracting hydraulic jack which is equipped with a 7-foot length of hose, enabling the operator to work at a safe distance when necessary or close to the



Shuredry Duck Salvage Covers Cut Costly Fire Losses from Smoke and Water

Damage from water and smoke is reduced when SHUREDRY Green-Bak Salvage Covers are on the job. Only the *finest quality, treated cotton duck,* which is pressure impregnated by the exclusive Fulton dry treatment, is used in SHUREDRY Covers. All seams are waterproofed, and SHUREDRY Covers are light—pliable and easy-to-handle. For top dependability — specify SHUREDRY when ordering salvage covers from your Fire Equipment Dealers.

Shuredry Green-Bak® Covers will pass the tests specified by the National Board of Fire Underwriters. They also carry the approved symbol of the Associated Factory Mutual Fire Insurance Companies.



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HIGH PRESSURE—Use one or two hard-hitting streams or fire-blanketing fog-spray
LIGHT WEIGHT—Easily carried to source of water or fire area
NEOPRENE IMPELLERS—Pump dirty water as well as clean water—assure long life
POWER—Efficient 4-cycle, air-cooled 5 HP engine known and serviced world-wide
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UP TO 40 GPM AT 150 PSI

MARINE PRODUCTS COMPANY
515 LYCASTE AVENUE • DETROIT 14, MICHIGAN

victim if desirable. All of the specially designed attachments assemble in seconds to the jack and provide hundreds of different combinations to meet any and all rescue emergencies.

In addition to the 7½-ton jack, the rescue kit contains many special features which add to its speed and efficiency in rescue work, such as the P-F spreader which fits into tight places yet gives an overall spread of 16 inches, the hydraulic ram which pinpoints the 7½-ton pressure where needed; the chain pull kit which is quickly and easily assembled for fast pulling operations; the non-skid pushing bases; plus other attachments which make it possible for this rescue kit to push, pull, lift, press, spread in any position and under any conditions.

The rescue kit is based on actual rescue work experience and has been thoroughly field-tested in many different types of rescue operations by many rescue squads and fire departments.

Hale Pump Appoints Connard

Hale Fire Pump Company, Conshohocken, Pa., has recently appointed Mr. Frank L. Connard as controller.

Prior to his association with the Hale Fire Pump Company. Mr. Connard was treasurer and controller of The Hillyear Instrument Company. He had formerly been associated with the paper industry, including the Riegel Paper Company, New York City, after World War II.

H & H CUSTOM APPARATUS ON YOUR CHOICE OF CHASSIS

A 2200 GALLON WATER CARRIER
A 500 GPM PUMPER . . .

Here is fire apparatus craftsmanship of the highest order—apparatus that any fire department can be proud to own—apparatus that dollar-for-dollar can't be beat!

This particular job includes 2200 gal. tank—500 GPM Front Mount Pump—Electric Hose Reels with 200 feet of one inch hose—600 feet of two and one half inch in open top shrouding—hard suction hose (4½ x 10) in troughs under catwalks on each side—two niches for 15 lb. C-O-Two extinguishers—2 large compartments on each side with automatic lighting. This or similar jobs to fit your needs can be had on any commercial chassis from 1500 to 3000 gal. capacity.

Write for further data and prices

H & H FIRE APPARATUS CORPORATION
725 TONNELE AVE., JERSEY CITY, N. J.

New Idea for Marking Equipment

When more than one fire department participates in a fire, it is hard to identify individual equipment. By marking it with stencil inks it is easily identified. Reynolds Inks put up in easy to use Aerosol spray cans are being used by many fire departments for marking their equipment.

These inks may be used for the identification marking of hose, raincoats, helmets, boots, gloves, canvas bags, and in fact, equipment of every description.

The inks are available in nine colors, namely, black, red, yellow, white, blue, green, orange, air force blue, and aluminum. They are claimed to be quick drying, water and weatherproof.

For further information, write direct to Reynolds Ink, Incorporated at 4500 Euclid Avenue, Cleveland 3, Ohio.

New Fire Hose Development

Super Fyr-Strype, a new first line municipal fire hose has been introduced by the Fyr-Fyter Company, Dayton, Ohio.

The hose has built-in protection of "Dacron" polyester fibre strips over the total outer jacket fold areas. Non-absorbent strips also insure complete fold and crease drying, thus giving positive protection against mildew and jacket deterioration. Additional insurance against wear, mildew, chemicals and water absorption is obtained by "Dacron" filler cords and coupling ends are reinforced with an extra rubber lining to insure a long lasting coupling bond.

The new hose is available in 50-foot lengths, 1½ and 2½-inch diameters.

For additional information, contact Roy Elder, Sales Promotion Manager, The Fyr-Fyter Company, 221 Crane Street, Dayton, Ohio.

Hand Operated Hydraulic Expander

The Bell and Pihl Company, 17 Wyman St., Arlington 74, Mass., manufactures an expander that uses hand-operated hydraulic pressure to attach expansion ring couplings to fire hose. It is claimed that no hard pulling, pushing or straining is necessary with the machine.

A simple lever adjusts the mandrel travel for expansion or retraction and a pressure gauge is provided for visual control. Bench or portable and stand models are available and the machine will handle any hose from ¾-inch to 3-inch. For complete details write to the manufacturer.

Ricca Joins Du Mont

Joseph A. Ricca, formerly operations manager of the Precision Components Division of the Norden-Ketay Corporation, has joined Allen B. Du Mont Laboratories, Inc., as manager of the Mobile Radio Communications Department.

In his new post, Mr. Ricca will be in charge of over-all administration, planning and coordination of the manufacture and sale of mobile radio communications systems and associated equipment.

What's Burning?

THE FOLLOWING LIST includes fires of $10,000 and over in the United States and Canada for the period from January 22nd to February 22nd.

Auburn, Ala.—Pi Kappa Phi Fraternity house at Alabama Polytechnic Institute, damaged. Defective wiring.

Mobile, Ala.—A. F. Owens School destroyed.

Tuscaloosa, Ala.—Phi Delta Theta Fraternity House at University of Alabama destroyed.

Mountain Home, Ark.—Carter Motor Co. and Midway Hotel destroyed. Explosion.

Russellville, Ark.—Blackford Tire Co., hardware store, appliance store and wholesale auto parts firm destroyed; furniture warehouse damaged.

Los Angeles, Calif.—Building, 927-929 South Los Angeles Street, housing small manufacturing firms, damaged.

Los Angeles, Calif.—Sunset Oil Co. plant damaged. Fuel oil exploded in cracking furnace.

Oakland, Calif.—Warehouse of Pacific Gas & Electric Co. damaged.

Reseda, Calif.—West End Furniture Co. plant and Neff's Department Store damaged. Explosion.

San Francisco, Calif.—H. Moffatt Co., wholesale butchers warehouse, damaged.

Denver, Colo.—Pre-cast Industries Inc. damaged.

Bethel, Conn.—Magnesium ladder manufacturing plant of White Light Structure Co. and garage and trucks of oil distributing and contracting firm of B. J. Dolan Co. destroyed.

Bristol, Conn.—Building owned by Felix DeVoti, housing R. & F. Department Store, destroyed.

Glastonbury, Conn.—Barn housing Nick Scaglia Construction Co. and McLain Trrcking Co. destroyed.

Glastonbury, Conn.—Barn and attached garage on Lewis Taylor farm destroyed. Seventeen head of cattle and sundry farm supplies owned by Louis Ethier destroyed.

Middletown, Conn.—Two storage sheds and freight car at Lowenthal Lumber Co. destroyed.

New Britain, Conn.—Hanna's Block housing Abbey Rosenfeld's Hub Radio Co. store, damaged.

New Britain, Conn.—Falcon building, housing business firms, damaged.

New London, Conn.—Wholesale grocery firm in former theatre building damaged.

Old Saybrook, Conn.—Wold Fowler Decoy Co. destroyed.

Stamford, Conn.—Main building of King School damaged.

Lewes, Del.—Don Gallagher Motors, Inc. building destroyed. Employee siphoning gasoline.

New Castle, Del.—Farmers Market destroyed. Cooking oil in doughnut machine ignited.

Washington, D. C.—Christian Heurich warehouse and stable destroyed.

Covington, Ga.—Ginn's Tire & Parts Co. and adjoining Tom Greer Livery Stable destroyed.

Chicago, Ill.—Chapel building of North Shore Baptist Church damaged.

Chicago, Ill.—Buildings owned by T. Schaer, housing S. Lurye, restaurant and tavern; building owned by Dr. F. Roberts and H. Hines, housing Dr. Roberts' offices and Northern Home Furnishing Co. store; and building owned by F. Alwart Estate, housing F. Buscienie Floral shop and S. Wogido, restaurant, damaged.

DeKalb, Ill.—DeKalb Commercial Body Co. destroyed.

Farmer City, Ill.—Main Street warehouse destroyed.

Marion, Ill.—H & H garage building damaged.

Peoria, Ill.—Traub's Market, Aaron Hardware and Paint Store, West Bluff Salon, apartments and adjoining Heitzman dwelling destroyed. Broken gas main caused explosion.

Anderson, Ind.—Three buildings housing bowling alley, furniture store, tavern and Moose Lodge destroyed.

Fort Wayne, Ind.—Downtown building housing Meyer Drug Store, Warner Beauty College, Jefferson Photo Studio and apartment, and other businesses, damaged.

for on the spot treatment of burns.

safe - immediate relief!

HEXATHRICIN

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automatic **aerospra**

will help SAVE a life!

Healing is 28% faster.

You will find HEXATHRICIN Aerospra particularly valuable in emergency and routine treatment of burns of all natures and all degrees of severity. It may be used with exposure or closed or pressure dressings.

Specific for all fungus and bacterial infections of the skin—poison ivy, poison oak, and indolent ulcers such as varicose ulcers and bed sores.

For literature write—

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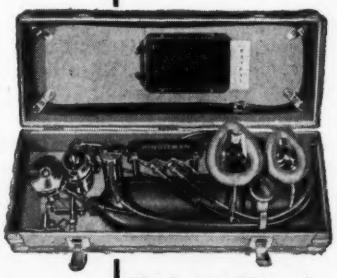

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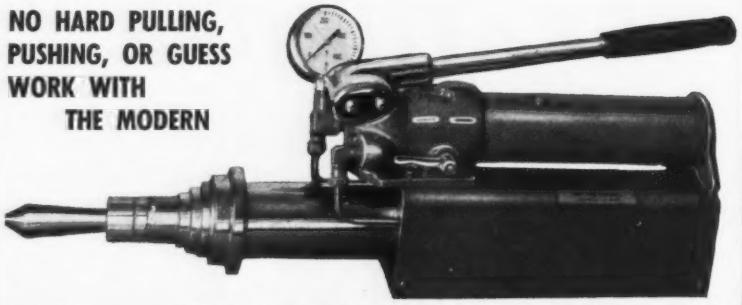

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with expand and retract lever for easy use and hydraulic pressure gauge for expansion control

Uses hand operated, smooth flow hydraulic oil pressure to expand brass expansion rings to fire hose. Same easy action withdraws mandrel after expansion, makes every attachment a snug, uniform, secure fit. In use by fire depts., municipal forestry and industrial. Available in bench or stand model manufactured by

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Fairbanks-Morse Portable Generators for dependable emergency service

F-M's most popular portable generating set is the P36 series. Available in 600, 1000, 1500, 2000 and 2500 watt capacities. Provides AC 120 volt power for lights, tools, etc. The 2500 watt unit weighs only 138 lb. Most popular mobile unit is the 3KA-2H—a 3500 watt generator supplying 115 or 230 volt AC power.

For complete information, write Fairbanks, Morse & Co., Dept. FE-3, Chicago 5, Ill.

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a name worth remembering when you want the BEST

GENERATING SETS • WATER SYSTEMS • MOWERS • MAGNETOS • PUMPS • MOTORS • SCALES • DIESEL LOCOMOTIVES AND ENGINES

Indianapolis, Ind.—Warehouse housing Philip Carey Mfg. Co. and Frederic B. Stevens Co. foundry and plating firm, and adjoining warehouse building, housing General Steel Fabrication Co., and Thomas L. Burwell, Inc. damaged.

Logansport, Ind.—Universal Fire Apparatus Co., fire truck plant, damaged.

Creston, Iowa—Two buildings housing Bernie Cafe and Donner Tavern, destroyed; adjoining Sidney Hotel and other buildings damaged.

Creston, Iowa—Creston City street department maintenance garage and storage building destroyed.

Eldon, Iowa—Business building, housing Amvet Post Clubrooms, clothing store, liquor store, general merchandise store, service station, law office and Eldon Forum, weekly paper, destroyed.

Storm Lake, Iowa—Fareway Supermarket damaged.

Barbourville, Ky.—High School damaged.

Louisville, Ky.—National Guard warehouse at Bowman Field destroyed.

Albion, Me.—Frank L. Besse High and Junior High School building destroyed.

Bath, Me.—Emero Oil Co. building destroyed. Defective oil furnace.

Boothbay Harbor, Me.—Rodney Reed Shipyard and 12 yachts destroyed.

Baltimore, Md.—Franklin Bowling Center destroyed.

Dundalk, Md.—George R. Norris, Inc., auto showroom and garage damaged.

Havre de Grace, Md.—Fireside Inn destroyed.

Boston, Mass.—Fishing boat, Demand and oiler Narmada, both at Bost Fish Pier damaged. Explosion.

Rockland, Mass.—Stewart's Women & Children's Wear, Jenkins & Simmons Express Co., Kelley's Tavern and Newberry Chain Store, damaged.

Salisbury, Mass.—Red Cottage Club, Inc. restaurant destroyed.

Somerville, Mass.—American Oil Products Co. asphalt mixing plant damaged.

Swampscott, Mass.—Preston Hotel damaged.

Fenton, Mich.—Building housing forge and pattern departments of Industrial Machine Tool Co. destroyed.

Flint, Mich.—Cloverleaf Tavern destroyed. Deep fat fryer ignited.

Grand Blanc, Mich.—Large barn and equipment on James P. Barkman farm destroyed.

Grand Rapids, Mich.—Scottie's Cafe damaged.

Grand Rapids, Mich.—Storage lot of Wagemaker Boat Co. housing 1,500 small craft, damaged.

Grayling, Mich.—Dawson's Dairy Bar and appliance store destroyed; Davis Jewelry store, Sale's Five and Ten Cent Store and Tip Top Togs store damaged.

Hopkins, Mich.—Weicks Supermarket destroyed; adjacent hardware and department store damaged.

Kalamazoo, Mich.—Student residential building on Western Michigan College campus damaged. Explosion caused by lit cigarette while installing vent pipes.

Mount Pleasant, Mich.—Stevens Manufacturing Co. plant damaged.

Port Huron, Mich.—Port Pontiac building, housing Keesler Distributing Co., Erd-Marshall Co., clothing firm, and Western & Southern Life Insurance Co., damaged.

Tawas City, Mich.—Two buildings occupied by Timco Corp. and Ottawa Equipment Co. destroyed.

Tawas City, Mich.—Tuttle Hardware Store building and adjacent Whitfield's store damaged.

Union Lake, Mich.—Giroux Supermarket damaged.

St. Louis, Mo.—Southwest Baptist Church damaged.

Warrenton, Mo.—Katie Jane Old Folks Home destroyed.

Reno, Nev.—Five downtown business buildings destroyed. Propane gas exploded from leaking mains.

Nashua, N. H.—50-year-old State-owned National Guard Armory, damaged.

Somerville, N. J.—Four Main street stores, including shoe store, destroyed.

Albany, N. Y.—Arthur L. Petit Farm Machinery Co. building destroyed.

Buffalo, N. Y.—Benderson Development Co. building, formerly a rubber reclaiming plant, damaged. Sparks from acetylene torches falling into rubber scraps.

Buffalo, N. Y.—Storage building of Twin Coach Co. damaged.

Buffalo, N. Y.—Riverside Salem Evangelical and Reformed Church damaged. Defective oil furnace.

Catskill, N. Y.—Lumber yard owned by Donald G. Sager and eight oil tank trucks destroyed.

Coboes, N. Y.—Two buildings of Swanknit Inc. children's clothing firm destroyed; adjoining storage building damaged.

Cranberry Lake, N. Y.—Three boathouses and dwelling owned by Rutherford B. Hayes and another dwelling destroyed.

Geneva, N. Y.—Theta Delta Chi Fraternity house at Hobart College damaged.

Inwod, N. Y.—Three oil trucks destroyed; oil tank damaged at Para-Marine oil Distributors.

Johnson City, N. Y.—Building owned by M. E. Rawlins, housing Farrell's kitchen & supply co. store, destroyed.

Massapequa, L. I., N. Y.—White Lumber and Millwork Corp. damaged.

Rifton, N. Y.—Administration building of Society of Brothers destroyed.

Saratoga Springs, N. Y.—Starbuck's Department Store, three drug stores, two men's clothing shops, a 5-and-10 cent store, two shoe stores and an appliance store destroyed. All 10 shops located across the street from the Warden Hotel damaged.

Syracuse, N. Y.—Garage building housing Iriquois Truck Rental Service and Smith Trucking Co., damaged.

Holly Ridge, N. C.—Warehouse owned by Mrs. John Brown destroyed.

Holly Ridge, N. C.—Garage building owned by Lloyd Lumber Co. destroyed.

Mt. Airy, N. C.—Franklin Elementary School destroyed.

Troutman, N. C.—Pine State Yarn Mill damaged. Overheated motor.

Cleveland, Ohio—Anthony Olszko bowling alleys destroyed; Tibson Cleaners, Kron-hein Furniture Co., M. J. Rogen's Stag Clothiers, Martin Kuban's Darling Children's Wear and R. A. Gall Realty Co. damaged.

Dayton, Ohio—St. John Transportation Co. garage destroyed. Sparks from acetylene torch.

Dayton, Ohio—R. L. Becker Machine Co. plant damaged. Sparks from blower motor ignited wood shavings.

Lorain, Ohio—Sheffield Restaurant and Lounge Bar destroyed; Probst Ice Cream, Modern Hardware, Kroger Co., H. D. Greenberg Optometry Shop, Sheffield Watch Repair, Crawford's Barber Shop, Kaase's Bakery, City Loan Co., and Blu-White Laundrowash, damaged.

Lorain, Ohio—Service Overall Supply Company damaged.

Mansfield, Ohio—Blecer Building, housing Muir's Drug Store, Coney Island Restaurant, City News and offices, damaged.

McClure, Ohio—Spangler-McAllister Mortuary destroyed.

Rossford, Ohio—Kroger Co. Supermarket damaged.

Warren, Ohio—McKnight Print Shop; G-K Bakers; Walter W. Prentice, Inc., meats and groceries; Scarpari's fruit market; DiLoreto & Sons, fruits; Mrs. Rita Tarr's Market House Restaurant; M. J. Phillips Meat Market and Ideal Health Center, destroyed; Arcade Beauty Shop, Custom Electronics Co., House of Fashion and Lewis H. McWhirter drug store damaged.

Mcalester, Okla.—Kelly Pontiac Co. damaged. Explosion.

Norman, Okla.—Education wing of First Presbyterian Church destroyed.

Florence, Ore.—Standard Oil of California plant damaged.

Pendleton, Ore.—Mayflower Milk Co. damaged.

Carlisle, Pa.—S. W. Ladd Motors, Inc. service garage, damaged. Spark from acetylene torch.

Erie, Pa.—Laco McMullen Co., lumber firm, damaged.

Kingston, Pa.—Kingston Methodist Church destroyed.

Levittown, Pa.—Lucas Hardware & Lumber Co. damaged.

New Castle, Pa.—West Pittsburgh Elementary School destroyed.

Philadelphia, Pa.—Sylane Lumber & Mill Work Co. damaged.

Pittsburgh, Pa.—Three downtown buildings housing Baldwin Piano Co., Honus Wagner sporting goods store, Fred Astaire Dance Studios and Yawman Erbe Office Furniture Manufacturing Co. and others damaged.

Starts throwing water in less than 30 seconds!

GORMAN-RUPP DUAL FIRE FIGHTER

TRULY PORTABLE. All models come equipped with carrying handles for two-man carry. Weight varies from 160 to 166 lbs. Picture shows handles in carrying position.

Fast action is urgent, when fire strikes. And when the water source is hard to reach, there's nothing more useful to carry on your truck than a Gorman-Rupp Dual Fire Fighter.

In a bare half-minute, water starts flowing through the lines. It can supply water to the truck pumper sufficient to operate two ½-inch nozzles at 100 pounds, or pump directly to the fire.

Gorman-Rupp Fire Fighter Pumps are backed by a positive plain-language guarantee. Ask your distributor for Bulletin 9-FD-11 or write direct.

Model 61½A-23FB	50 GPM @ 110 lbs.
Model 6201 FF	100 GPM @ 80 lbs.
Model 6301 FF	210 GPM @ 40 lbs.

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305 BOWMAN ST. • MANSFIELD, OHIO

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—in any league.

LEADING BRANDS, LARGEST Stock, LOWEST Price

SEND FOR COMPLETE CATALOG

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UP THE LADDER

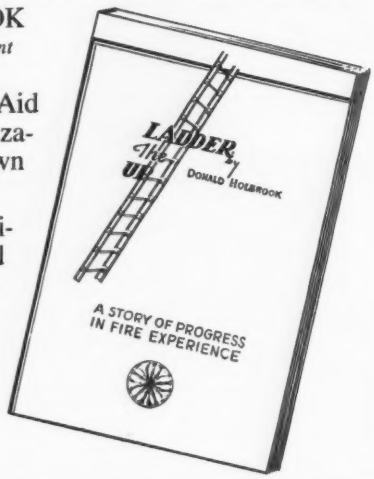
by DONALD HOLBROOK

Chief, Meadowood Fire Department
Cheshire County Area, N. H.

A "bell ringer" for Mutual Aid and County Area fire organization with record of author's own volunteer group.

A lifetime story of experiences with professional and volunteer fire departments, with an introduction by Chief Thomas J. Collins, New Haven, Connecticut Fire Department.

Net proceeds from sale of book go towards Meadowood's proposed new assembly hall available to the Fire Service.



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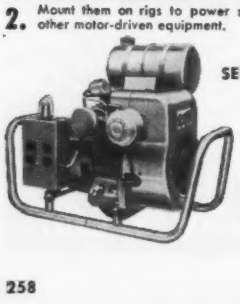
1. Carry them by hand right up to the fire...operate power tools and lights.

2. Mount them on rigs to power searchlights and other motor-driven equipment.



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1,500 watts;
125 pounds

ONAN Electric Plants help you fight fires all 3 ways!

ONAN portable models combine light weight with 4-cycle quick starting, long life and all-around dependability. Quick release bases are available on many models permitting instant removal of the units from fire rigs. Onan Standby Plants from 1,000 to 50,000 watts assure electric power for fire stations, headquarters departments and radio communications. Air-cooled models can be equipped with Onan's exclusive Vacu-Flo cooling system allowing installation in closed rooms or compartments.

3. EMERGENCY STANDBY POWER
Installed in the fire station or department, they supply all electricity required when power is interrupted.

Write for Folder on fire department models

D. W. ONAN & SONS INC.

3117 Univ. Ave. S. E., Minneapolis 14, Minn.

Onan ELECTRIC PLANTS

Pittsburgh, Pa. — Bellefield Girls Vocational School in Oakland section destroyed.
Pittsburgh, Pa.—Holy Rosary Elementary School damaged.
Pittsburgh, Pa.—Downtown business building housing Local 237, Hotel and Restaurant Workers Alliance, shoe store, stamp premium store, coffee firm, bar and hotel supply house and shoe repair shop, destroyed.
Stonehurst Hills, Pa.—St. Cyril's Roman Catholic Church annex destroyed.
Humboldt, Tenn.—Warehouse owned by City Warehouse Co. of Memphis, destroyed. Defective wiring.
Memphis, Tenn.—Clearpool Dance Pavillion destroyed.
Berlin, Vt.—Hooker Wayside Furniture Co. and Bi-Rite Supermarket destroyed.
Roanoke, Va.—Building housing One-Hour Valet Cleaning Shop, destroyed.
Roanoke, Va.—Vann's A & B Warehouse destroyed.
Kennewick, Wash. — Pacific Chemical plant damaged. Ammonia tank explosion.
Reardan, Wash.—Ranch house and cafe of Vernal Polson destroyed.
South Bend, Wash.—Profitt Clinic building destroyed.
Spokane, Wash.—Northern Pacific Railway car shops destroyed.
Toppenish, Wash.—United Farmers Co-operative buildings destroyed.
Vancouver, Wash.—Vancouver Furniture Exchange destroyed.
Parkersburg, W. Va.—Building owned by the Parkersburg Sentinal Co., housing studios of radio station WPAR destroyed.
Milwaukee, Wis.—Belmont Hotel and all-night coffee shop damaged.
Prince George, B. C.—Ritz-Keefer Apartment building destroyed.
Prince Rupert, B. C.—McIntyre Building destroyed.
Monoton, N. B.—Warehouse housing Firestone Tire & Rubber Co. and Colgate-Palmolive Ltd. destroyed.
Cornwall, Ont.—Cement mixing plant owned by Gerald Lalonde, damaged.
Toronto, Ont.—National Rubber Co. plant damaged.
Sillery, Que.—Combined offices and warehouses of Irving Oil Co. and Petroles Corp. destroyed.
Sorel, Que.—Chateau-guay Hotel, print shop, tavern, jeweler's store and lingerie shop destroyed. Two overheated oil drums caused explosion.
Villa Jacques Cartier, Que.—Commercial Building housing two-classroom school, restaurant, Rene's Pastry Shop, Lelores Lingerie Shop and apartment of building owner, Paul Labelle, destroyed.
Whitewood, Sask.—Five businesses destroyed and two stores damaged in east side business section.
Yorkton, Sask.—Smith Building housing Avalon Photo Studios destroyed; three other buildings damaged.

Formal Protest To FCC In Fire Radio Conflict

The Commissioners of Cumberland County Pa., have filed a formal protest with the Federal Communications Commission against a recent license issued to the Borough of Lemoyne for a fire radio system. It calls for an FCC decision as to whether Lemoyne, a political subdivision of the county, will be permitted to operate its own fire radio system on the same frequency (46.06 mc) as the county's mutual aid radio network, without full coordination with the county system.

In the protest filing, the county explained that the fire radio network at present consists of about 90 cooperating units, and Lemoyne, which has "approximately five units . . . should not be allowed to compete" with the county system. The county commissioners asked that the Lemoyne grant be set aside.

FDIC PILGRIMAGE

Continued from page 232

stirring address by Robert F. Hamm, director, Public Relations and Fire Department Training, Indiana Rating Bureau, in which he traced the evolution and progress of FDIC.

The final day saw working sessions continued right up to mid-afternoon when all hands enjoyed the annual "1957 FDIC Follies," an all-star, one-hour stage show graced by the most attractive of Memphis' younger set. It was preceded by an opening Quiz Panel in which the Exploratory Committee on Water Fog undertook to answer questions on fog applications. The leader was Emmett Cox who was assisted by O. G. Carpenter; William H. Dahlgren, Tennessee Inspection Bureau; Joseph I. Fetters, University of Missouri; Everett Hudiberg, Oklahoma A & M; Roy Simmons, Dallas Fire Department; Chief Lloyd M. Steele, Greenbrier Hotel, White Sulphur Springs, Va., and Captain Joseph Dieckman, Chicago Fire Department.

John N. Cardoulis, fire protection engineer, Northeast Air Command, USAF, outlined the enviable record in fire protection and prevention made by his Labrador Air Force Base. He was followed by Harold J. Burke, former chief of the New York Fire Department and now vice-president of Pyrotechnics, Inc., Newark, N. J., who described and demonstrated the latest type radioactive fire detection and alarm device, operating on an entirely new principle which does not require the presence of heat, smoke or flame to actuate it.

Chief John Klinck presented an illustrated description of the operation of his department on a huge corncob fire (see this issue of FIRE ENGINEERING) after which a five-man panel reviewed "Scouting in Action," with emphasis on fire department cooperation. George K. Myers, civic relationship director, Boy Scouts of America, led the group, aided by Don Haight, Minneapolis Fire Department; Chief D. A. Meek Jr., West Point, Miss., Fire Department; Dale Auck, Federation of Mutual Fire Insurance Companies and Chief G. R. McAlpine, Oklahoma City.

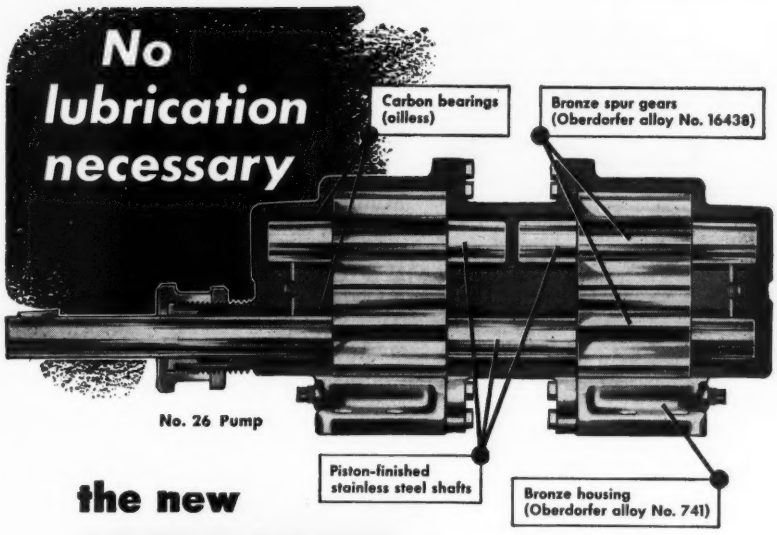
The closing lunch saw the numerous committees of the Memphis Fire Department honored by acclamation and an address by R. J. Douglas, Oklahoma A & M on the technique of "Chalk Talks."

As for many years, the closing item was the "Annual FDIC Broadcast." This year it was aptly and spiritedly done by "Hank" Ritgerod, one of the faithful of Dick Vernor's staff, in charge of public relations.

Concluding, Dick Vernor said, "It has cost somebody well over $250,000 to send you all here. That is quite an investment. Whether or not it pays dividends is what you have to individually answer."

The invitation of Chief Klinck to hold the Thirtieth Anniversary Conference in Memphis on February 18-21, 1958, was received with acclaim. □□

Photographs used in connection with this story were taken by Memphis Fire Department photographers, Davis and Evans.


No lubrication necessary
Carbon bearings (oilless)
Bronze spur gears (Oberdorfer alloy No. 16438)
No. 26 Pump
Piston-finished stainless steel shafts
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The No. 13 and No. 26 Oberdorfer Pumps are more fool-proof than they have ever been. When you get to a fire you have something you can count on. It isn't necessary to wear pumps out checking them periodically to see if they will work. These pumps are metering pumps in principle and therefore must produce the same volume for every revolution of the drive shaft.

PERFORMANCE DATA—No. 26 and No. 13 PUMPS

Pump No.	Pump Shaft R.P.M.	Pounds Pressure	Hose Length and Size	Dry Suction Lift in Feet	Vol. in Gal. Per Minute
26	1600	120	500'—1½"	20'	150
13	1600	120	500'—1½"	20'	75

FIRE PUMP DIVISION, Oberdorfer Foundries, Inc., Syracuse, N. Y.

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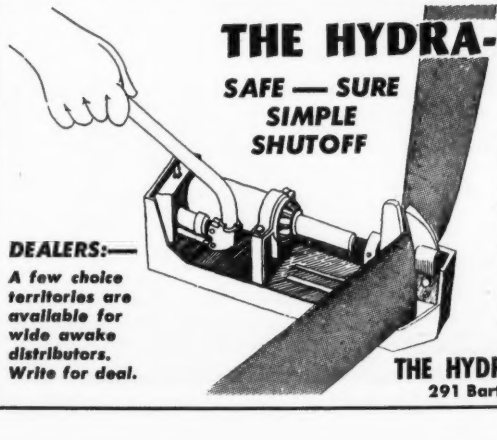
SAFE — SURE SIMPLE SHUTOFF



Will not slip on any surface or incline—will not "kick-back" — stops flow completely at 250 PSI—allows partial flow—WILL NOT DAMAGE HOSE! Clamps 1½-, 2½-, 3-inch hose. Carries easily—weight 22 lbs. Measures 4 x 4 x 14 inches. DATA ON REQUEST.

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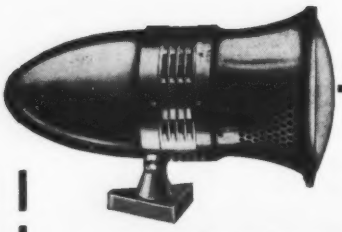

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Questions and Answers

Discharge from Open Butt on Inclined Line

Question: **We were called to fill a 20,000-gallon gasoline tank and did so with the following layout. A line of 2½-inch hose 250 feet in length was laid to the tank which was elevated 36 feet above the ground. We used a pump pressure of 90 psi into an open butt. What was the discharge and what would be the friction loss per 100 feet?**

Answer: When the line is laid up an incline, it is first necessary to find the back pressure. Subtract this from the pump pressure in order to find the net available pressure for overcoming friction loss and producing a nozzle pressure (in this case an open butt).

Back pressure is equal to $36 \times .434$, or 15.6 psi.

Net available pump pressure is then $90 - 15.6$, or 74.4 psi.

Solve next for the nozzle pressure using the formula:

$N.P. = E.P. \div (1.1 + KL)$

K for an open butt is 3.35.

L, the number of 50-foot lengths of hose in the line is 5

Therefore, $N.P. = 74.4 \div (1.1 + [1.35 \times 5])$
$= 74.4 \div (1.1 + 16.75)$
$= 74.4 \div 17.85$
$= 4.16$ psi

The discharge formula for an open butt is:

$\text{Discharge} = 29.7D^2 \times \sqrt{P} \times 0.90$
$= 29.7 \times 2.5 \times 2.5 \times \sqrt{4.16} \times 0.90$
$= 29.7 \times 2.5 \times 2.5 \times 2.04 \times 0.90$
$= 340.8$, or 341 gpm approximately

The formula $2Q^2 + Q$ will not give an accurate answer in this case, so the following is used instead:

F. L. = E. P. − (NP. + B.P.) ÷ number of 100 foot lengths
$= 90 - (4.16 + 15.6) \div 2.5$
$= 90 - 19.76 \div 2.5$
$= 70.24 \div 2.5$
$= 28.09$, or 28 lbs. per 100 ft.

Branched Lines

Question: **An engine is pumping into 500 feet of 2½-inch hose which is branched into two 1½-inch lines each 100 feet long and equipped with ½-inch tips at 50 psi nozzle pressure. What is the engine pressure?**

Answer: First change the layout to a single line of 2½-inch hose. The factor for converting 1½-inch hose to equivalent 2½-inch is .074.

$100 \div .074 = 1{,}370$ feet of 2½-inch hose.

Two lines of 2½-inch hose each 1,370 feet long are equivalent to a single line 380 feet in length. This is found by dividing 1,370 by the factor 3.6.

The layout is then equivalent to 380+500, or 880 feet of 2½-inch hose single line.

Find the nozzle equivalent to two ½-inch nozzles as follows:

Combine the nozzles by finding the square root of the sum of the diameters squared.

$\frac{1}{2}\times\frac{1}{2}=.5\times.5=.25$

$\frac{1}{2}\times\frac{1}{2}=.5\times.5=.25$

$.25+.25=.50$

$\sqrt{.50}=.707$.

The nearest standard size to a nozzle .707 inches in diameter is a ¾-inch nozzle which has a diameter of .75 inches.

For small nozzles on 2½-inch hose the following formula is used:

E. P.=N. P.×(1+KL)

K for ¾-inch nozzle and 2½-inch hose is .042

L, the number of 50-foot lengths of hose in the line is equal to 880÷50, or 17.6.

Therefore, E. P.=50×(1+[.042×17.6])
=50×(1−.74)
=50×1.74
=87 psi

Siamesed Lines

Question: **An engine is pumping into two parallel 2½-inch lines each 500 feet long. These lines are siamesed into a single line of 2½-inch hose 100 feet long and equipped with a 1¼-inch tip at 50 psi. What is the engine pressure?**

Answer: First reduce the layout to a single line of 2½-inch hose by dividing the parallel lines by the factor 3.6 and adding the result to the single line.

500÷3.6=138.9, or 139 approximately
139+100=239

Find the engine pressure by the formula E. P.=N. P.×(1.1+KL)

K for a 1¼-inch nozzle and 2½-inch hose is .248

L, the number of 50-foot lengths of 2½-inch hose is 239÷50, or 4.78.

E. P.=50×(1.1+[.248×4.78])
=50×(1.1+1.19)
=50×2.29
=115 psi

Question: **An engine is pumping into two parallel 2½-inch lines 500 feet long which are siamesed into a single line of 2½-inch hose 100 feet long. The line is equipped with a 1½-inch tip which has a nozzle pressure of 50 psi. What is the correct engine pressure?**

Answer: First reduce the layout to a single line of 2½-inch hose by dividing the parallel length by the factor 3.6 and adding the result to the single line.

500÷3.6=139
100+139=239

Using the same formula for engine pressure as above and using the value of K for 1½-inch nozzle on 2½-inch hose, which is .505, we find:

E. P.=50×(1.1+[.505×4.78])
=50×(1.1+2.41)
=50×3.51
=175.5 or 175 psi approximately

From one chief to another . . .

CHIEF LUKE J. BERGAN, AUBURN, N. Y., SAYS:

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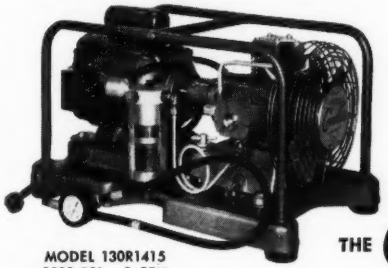

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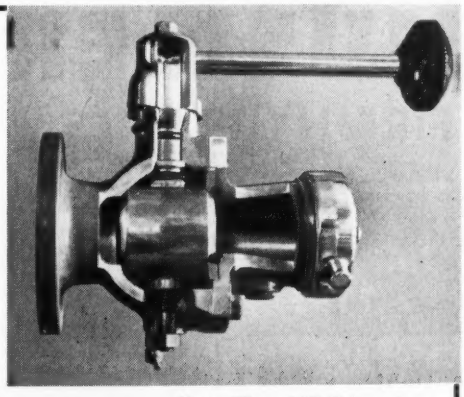
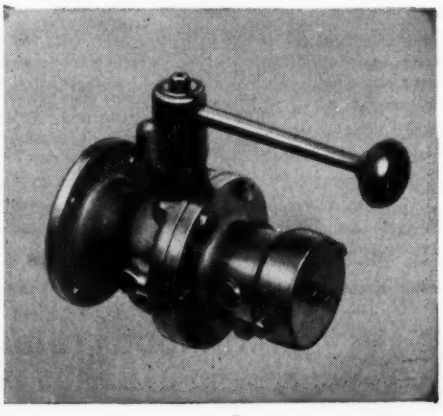
. . . This popular HALE ball-type BL VALVE is not only furnished on new HALE Pumps, it is also available for easy installation on practically ALL Hale Fire Pumps now in service, regardless of age. The type "BL" is available in 2½" size only.



Above—View of BL Valve cut away to show internal construction. Valve is in open position with cap on.



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Schools and Conferences

Mar. 18-22—Greater New York Safety Conference. Annual meeting, Hotel Statler, New York, N. Y. For information, contact Carl F. Olander, General Chairman, Greater New York Safety Council, 60 East 42nd Street, New York 17, N. Y.

Mar. 18-22—Florida State Fire College. Units 103—Rescue, Ventilation, Salvage and Overhaul; 105—Fire Apparatus and Pumps; 206—Fire Prevention and Protection, to be held at Florida State Fire College, Ocala, Fla. For information, contact W. H. Barnett, Superintendent, P. O. Box 785, Ocala, Fla.

Mar. 25-29—Florida State Fire College. Units 104 — Fire Streams and 201 — Instructor Training, to be held at Florida State Fire College, Ocala, Fla. For information, contact W. H. Barnett, Superintendent, P. O. Box 785, Ocala, Fla.

Mar. 25-29—Indiana Fire School. Basic Fire Training Course, Purdue University, Lafayette, Ind. For information, contact Professor Shelby Gallien, Director, Public Safety Institute, Division of Adult Education, Purdue University, Lafayette, Ind.

Mar. 28-30—Connecticut Fire Officers Training Conference. Annual meeting, Storrs, Conn. For information, write Ray Adams, Capitol Building, Hartford, Conn.

Apr. 2-5—Maryland Short Course for Fire Inspectors. Annual meeting, University of Maryland, College Park, Md. For information, contact Robert C. Byrus, Director, Fire Service Extension Department, P. O. Box 295, College Park, Md.

Apr. 15-19—Florida State Fire College. Unit 208, Fire Department Administration, to be held at Florida State Fire College, Ocala, Fla. For information, contact W. H. Barnett, Superintendent, P. O. Box 785, Ocala, Fla.

Apr. 29-May 3—International Seminar on Arson Detection and Investigation. Annual meeting, Purdue University, Lafayette, Ind. For information, contact Professor Shelby Gallien, Director, Public Safety Institute, Division of Adult Education, Purdue University, Lafayette, Ind.

May 6-7—Georgia State Fire College. Silver Anniversary meeting, Atlanta, Ga. For information, contact Harry Phillips, Director, 46 Courtland Street, S. E., Atlanta 3, Ga.

May 20-24—National Fire Protection Association. Annual meeting, Los Angeles, Cal. General Manager, Percy Bugbee, National Fire Protection Association, 60 Batterymarch Street, Boston 10, Mass.

May 20-24—New York State Fire Instructors Conference. Annual meeting, Plattsburgh, N. Y. For information, contact Michael H. Prendergast, Director, New York State Division of Safety, 17 Elk Street, Albany 7, N. Y.

May 21-23—Liquefied Petroleum Gas Conference, to be held at Florida State Fire College, Ocala, Fla. For information, contact W. H. Barnett, Superintendent, Florida State Fire College, P. O. Box 785, Ocala, Fla.

May 26—Suffolk County Fire Chiefs' Council. Annual field conference, to be held at Suffolk Air Force Base, Westhampton, L. I., N. Y. For further information, contact Ernest G. Wilcox, P. O. Box 125, Smithtown, N. Y.

June 3-5—Eastern Association of Fire Chiefs. Annual meeting, Baltimore, Md. Secretary, Chief Edwin J. Clark, Box 328, Wayne, Pa.

June 6-8—Montana State Fire Chiefs Association, Annual meeting, Lewistown, Mont. Secretary-Treasurer, William S. Hayes, 312-1st Avenue North, Great Falls, Mont.

Schools and Conferences

June 11-12—**Indiana Fire Department Instructors' Conference.** Annual meeting, Indianapolis Drill School, Indianapolis, Ind. For information, contact Professor Shelby Gallien, Director, Public Safety Institute, Division of Adult Education, Purdue University, Lafayette, Ind.

June 16-19—**Oregon Fire Chiefs Association and Rural Fire Districts Association.** Joint conference, Coos Bay, Ore. For further information, contact Chief Francis X. Mulvey, P. O. Box 218, Coos Bay, Ore.

June 17-21—**Fire Pump Maintenance Course,** to be held at Florida State Fire College, Ocala, Fla. For information, contact W. H. Barnett, Superintendent, Florida State Fire College, P. O. Box 785, Ocala, Fla.

June 19-21—**Colorado State Firemen's Association.** Fortieth Anniversary, Convention, Tournament and Fire School, Loveland, Colo. Secretary, Arthur J. Becker, 2224 South Stuart Street, Denver 19, Colo.

June 19-22—**Arizona State Firemen's Association.** Annual meeting, Prescott, Ariz. For information, contact Chief Jack Custer, Fire Headquarters, Prescott, Ariz.

June 21-22—**Iowa Association of Fire Fighters.** Annual meeting, Council Bluffs, Iowa. For information, contact D. A. Baxley, Convention Co-Chairman, Fire Station No. 2, Council Bluffs, Ia.

June 23-26—**New England Association of Fire Chiefs.** Annual meeting, Wentworth-by-the-Sea, Portsmouth, N. H. Secretary-Treasurer, John W. O'Hearn, 206 Mt. Auburn Street, Watertown 72, Mass.

June 24-28—**Virginia Firemen's School.** Annual meeting, Williamsburg, Va. For information, contact Robert B. Smith, Assistant Marshal, Williamsburg Fire Department, Williamsburg, Va.

Aug. 5-9—**Arson Investigation and Detection Seminar,** to be held at Florida State Fire College, Ocala, Fla. For information, contact W. H. Barnett, Superintendent, Florida State Fire College, P. O. Box 785, Ocala, Fla.

Aug. 5-10—**Pennsylvania Fire School.** Annual meeting, Lewistown, Pa. For information, contact Arthur W. Espey, Supervisor, Fire Service Training, Public Service Institute, P. O. Box 631, Lewistown, Pa.

Aug. 17-24—**Macomb County Firemen's Association.** Annual regional fire school, Mount Clemens, Mich. For information contact Fire Marshal Walter O. Jacobs, St. Claire Shores Fire Department, St. Clair Shores, Mich.

Aug. 18-23—**Firemen's Association of the State of New York.** Annual meeting, Elmira, N. Y. For information contact the headquarters of the Association, Hotel Martinique, Broadway at 32nd Street, New York 1, N. Y.

Sept. 8-12—**International Association of Fire Chiefs. Annual meeting, New Orleans, La.** Secretary-Manager, B. Richter Townsend, Suite 1306, 232 Madison Avenue, New York 16, N. Y.

Sept. 9-13—**Virginia State Fire School.** Annual meeting, No. 9 Station, Thole Street, Norfolk, Va. For information, contact R. Lawrence Oliver, Supervisor-Instructor, Fire Service Training, P. O. Box 654, Harrisonburg, Va.

Sept. 9-13—**Florida State Fire College.** Units 101, Tools, Forcible Entry, Breathing Apparatus; 107, Arson Detection; 208, Fire Department Administration. For information, contact W. H. Barnett, Superintendent, P. O. Box 785, Ocala, Fla.

Sept. 10-13—**Indiana State Fire School.** Annual meeting, Purdue University, Lafayette, Ind. For information, contact Professor Shelby Gallien, Director, Public Safety Institute, Purdue University, Lafayette, Ind.

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Syracuse, New York

Schools and Conferences

Sept. 12-14—West Virginia State Firemen's Association. Annual meeting, McMechen, W. Va. For information contact Edgar Gallagher, Convention Chairman, McMechen Volunteer Fire Department, McMechen, W. Va.

Sept. 12-14—Westchester County Volunteer Firemen's Association. Annual meeting, Briarcliff Manor, N. Y. For information, contact John R. Bailey, Secretary, Box 1, Baldwin Place, N. Y.

Sept. 16-20—Florida State Fire College. Units 102, Hose and Ladders; 106, Fire Inspection; 204, Fire Fighting Tactics, to be held at Florida State Fire College, Ocala, Fla. For information, contact W. H. Barnett, Superintendent, P. O. Box 785, Ocala, Fla.

Sept. 22-26—California State Firemen's Association, Inc. Annual meeting, San Mateo, Cal. For information, contact E. L. Albrecht, Sr., Secretary-Treasurer, 755 - 17th Street, San Bernardino, Cal.

Sept. 23-27—Florida State Fire College. Units 103, Rescue, Ventilation, Salvage and Overhaul; 105, Fire Apparatus and Pumps; 206, Fire Prevention and Protection, to be held at Florida State Fire College, Ocala, Fla. For information, contact W. H. Barnett, P. O. Box 785, Ocala, Fla.

Sept. 30-Oct. 4—Florida State Fire College. Units 104, Fire Streams; 201, Instructor Training; 202, Company Officer Training, to be held at Florida State Fire College, Ocala, Fla. For information, contact W. H. Barnett, Superintendent, P. O. Box 785, Ocala, Fla.

Oct. 17-19—Arizona State Fire Training School. Annual meeting, Phoenix, Ariz. Director, Jake Siken, Firefighting Instruction Supervisor, Phoenix Fire Department, 49 South First Street, Phoenix, Ariz.

New Orleans Fire Captain Publishes Novel

Captain H. L. Bouchon of the New Orleans, La., Fire Department, has published his first novel. Titled "How High the Stars," it was published by Exposition Press Inc., 386 Fourth Avenue, New York 16, N. Y. It is a light, psychological love story of a metropolitan fireman.

Supreme Court Upholds Ohio Fire Marshal Law

In a 5 to 4 decision the United States Supreme Court recently upheld an Ohio law which permits fire marshals to question persons in private proceedings without the aid of counsel.

Officer Training Guide Published by Takoma Park

The City of Takoma Park, Md., has issued a training guide manual for use in its fire officers training course. It was prepared for use by the officers and members of both the paid and volunteer members of the department but could be easily adapted for any small municipal or volunteer fire department.

The entire course was compiled by

Eastman No. 10 STANDPIPE TURRET

A small, highly efficient and inexpensive fire fighting deluge gun for permanent mounting. One man can easily direct the streams of three of these guns at one time, locking them into position at will.

The Model 10 Gun is excellent for use on standpipe locations in lumberyards, oil refineries, factories, or any location which has a localized fire hazard.

May be rotated at any angle and locked in position at will

Send for Bulletin 1-56

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Chief Melvin E. McBride, former chief of the department and field instructor in the Fire Service Extension School, University of Maryland. It covers a total of 60 hours of instruction and includes leadership, instructor training, administration, public relations and fireground duties. This material is broken down into a series of 20 units of instruction given in three hour sessions.

The course is designed to overcome the trial and error methods of training and to acquaint prospective officers with the duties and responsibilities of the positions they may attain.

Publications Received

TESTED ACTIVITIES FOR FIRE PREVENTION COMMITTEES, Fourth (revised) Edition. All 84 pages packed with ideas culled and collated from the nation's leading fire prevention campaigns. Published by Federation of Mutual Fire Insurance Companies, 20 North Wacker Drive, Chicago 6, Ill. Copies free upon request.

FIRE FIGHTING PROCEDURES, Unit III of the Fire Department Administration Series, published by Fire Protection Department, School of Technical Training, Oklahoma A & M College, Stillwater, Okla. Price $1.00.

FIRE PROTECTION FOR CHEMICALS, by Charles W. Bahme, compiled from texts published in the National Fire Protection Association Quarterly between 1952 and 1955, for training of members of the fire service charged with responsibility for safeguarding life and property against fire and explosion hazards of dangerous chemicals. Price $5.00.

NATIONAL ELECTRICAL CODE, 1956, published by the National Fire Protection Association, 60 Batterymarch Street, Boston 10, Mass. A revision of the 1953 standard. Price $1.00.

OCCUPANCY FIRE RECORDS, published by the National Fire Protection Association. Fire Record Bulletin FR 56-5—Retail Lumber Yards; Fire Record Bulletin FR 56-6, Hotels; Fire Record Bulletin FR 56-7, Bowling Alleys, and Fire Record Bulletin FR 56-8, Laundries and Dry Cleaning Plants. Summaries of typical fires prepared by the Fire Record Department, NFPA. Price 50 cents each.

SUCCESSFUL SUPERVISION, by John D. Gerletti and Frank B. Black, published by William G. Brown Co., Dubuque, Ia. A guide for training supervisors prepared from group projects in classes in supervision at the University of Southern California. Prepared in outline form with sufficient flexibility to allow maximum freedom in adapting the materials to any given situation. Price $2.00.

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MEMCO AERIAL LADDER

The MEMCO AERIAL LADDER, pictured below, is a versatile piece of apparatus. It can be built into a new fire truck, or in some instances an existing fire truck can be modified. Ask your local fire truck manufacturer for details.

(Photo courtesy Howe Fire Apparatus Co., Anderson, Indiana)

Now there is no reason why your Department should get along without aerial apparatus—the MEMCO AERIAL LADDER (available in 50 and 65 ft. lengths) has been priced to fit into even the modest budget.

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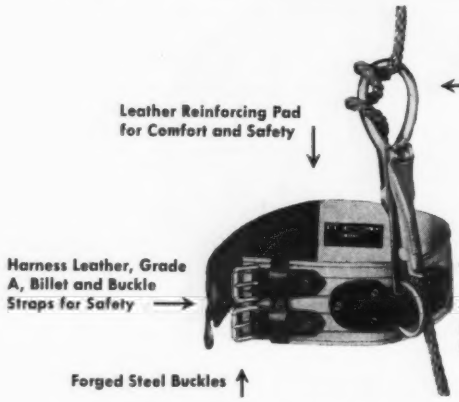
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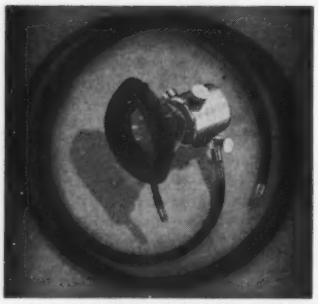

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If your city wants *modern automatic* (no code wheel) municipal protection,

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Annual Report

Chicago Annual Report—1956

The report of the operations of the Chicago Fire Department for the calendar year is a very comprehensive one. One section contains a complete description of the Stockyards fire on August 22, 1956, and the disaster that occurred on November 5, 1956, when two elevated trains crashed. These and other activities of the department are well illustrated with action photographs.

Total alarms of fire answered during the year amounted to 42,527 an increase of about 4 per cent over the previous year. In addition 39,323 special duty responses were reported.

Atlantic City Annual Report—1956

Chief Zenus Mathis reported a total of 618 fires during 1956 with damages estimated at $289,196. Fire prevention activities included 9174 inspections; these figures include complete inspections for licensing the city's 474 hotels.

Oakland Report—1955-56

Chief James J. Sweeney, Jr., of Oakland, Calif., reported losses of $1,985,709 for the period. A total of 5,947 alarms were answered and $41,465,155 worth of property value was involved. The largest single cause of damage was by sparks from incinerators which accounted for nearly 25 per cent of the fire loss.

The well prepared report contains a wealth of statistical data in chart and graph form.

Springfield, Ohio Losses Up

Chief Willard G. Compton reported losses of $241,640 for 1956, or a per capita loss of $2.87. Alarm totals were down slightly to 1,005.

Chief Compton recommended that one station be relocated and a second station be built on the north side of the city.

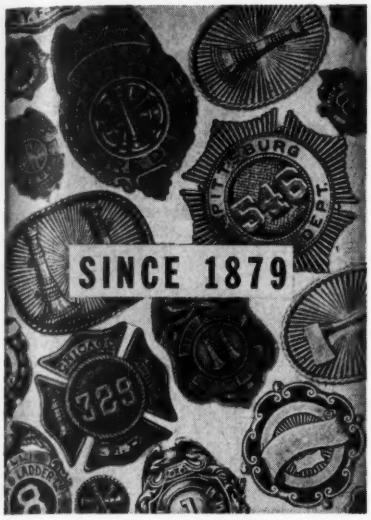
Manila, P. I.—Fiscal Year 1955-56

Chief Eulogio Samio has recommended the purchase of six pumpers, seven tank truck/pumpers, two aerial trucks and two fire boats. In addition he recommended the reconstruction of five fire stations damaged during World War II, the replacement of one station and the construction of two new fire stations.

Alarms for the period totaled 1,717 with losses of 1,675,818 pesos.

Melbourne, Australia Report

The report of the Metropolitan Fire Brigades for the fiscal year 1955-56 shows 6,353 fires, an increase of about 13 per cent over the previous period. Chief Officer L. P. Whitehead reported 1,801 malicious false alarms and 571 hoax telephone calls.



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Firemen the world over rely on Braxmar for the finest badges money can buy. We offer the widest possible selection in nickel, chrome plate, sterling silver, gold plate, rolled gold and solid gold; all of our badges and insignia are the work of experts with a lifetime of service.

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Book Shelf

UP THE LADDER, *by Chief Donald Holbrook. A pocket volume of 54 pages published by Meadowood Fire Company, Cheshire County, N. H. Copies may be obtained from Meadowood Public Relations, Suite 705, 84 State Street, Boston 9, Mass. Price $1.50.*

The volunteer chief of the Meadowood Fire Department relates his experiences of a life time of work with and for the professional, military and volunteer fire services. Written in interesting autobiographical style, it provides a first-hand account of an adventurous and busy life. The introduction is by Chief Thomas J. Collins of the New Haven, Conn., Fire Department. Proceeds from the sale of the book are for the benefit of the Meadowood Fire Department.

Sabine-Neches Mutual Aid Manual

The Sabine-Neches Fire Chiefs Association, composed of municipal, military and industrial fire chiefs of Orange and Jefferson counties, Texas, has published a mutual aid manual governing the operations of the association.

The 11-page booklet explains purposes of the organization, and reviews the history leading up to the present mutual aid plan. The principles of operation, operating procedures and radio signals to be used in the plan, are outlined both for peacetime and Civil Defense emergencies.

The Association was organized in 1949 to provide better protection through mutual assistance in the area of highly concentrated petroleum refining, petro-chemical, and manufacturing industries.

AUTOMATION

Continued from page 237

ing, or a waiting period for the building to warm up during a sudden cold wave. The building is zoned into different heating areas according to their respective requirements.

Further refinements

As an integral part of a fire fighting machine, this building also has fire fighting and fire prevention equipment for itself. The excavated cellar and boiler room areas are isolated from the rest of the structure by reinforced concrete walls, ceiling slabs and fireproof door assemblies. Stair hall and public hall areas are of fireproof construction. All steel beams and girders supporting masonry walls are fireproofed in concrete. Kitchen equipment is protected by fireproof doors and walls.

Shafts capable of flue action have been firestopped.

Effective landscaping has been incor-

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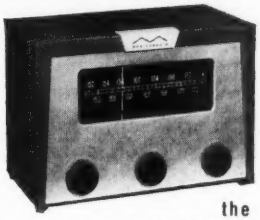

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MR-33, MR-10—Tunable FM receivers for powerful, static-free monitoring of all stations on either the 30-50 or 152-174 mc band. 3 μv sensitivity. 7 tubes plus rectifier.

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MRC-33, MRC-10—For the first time, a low cost crystal-controlled receiver of quality design. Pre-set to any frequency in the 25-54 or 147-174 mc bands. 2.5 μv sensitivity. 8 tubes plus rectifier. Crystal included.

Both units feature powerful 5" speaker, fully tuned RF stage, built-in squelch. Housed in rugged metal cabinets. 110-120V, 60 cycle, AC only. U.L. approved. The Minute Man—$64.50. The Signal Master—$76.50.

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ESTABLISHED 1895

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Yes, the Janesville turn out suits are custom-built! Janesville offers you the convenience and comfort of sleeve and coat lengths tailored to fit *your* measurements!

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porated into the budget as an integral part of the building program.

Construction schedule and cost analysis

The following is an analysis of construction systems and materials and costs:

Total area including cellar—9,923 square feet—117,440 cubic feet. Cost per square foot—$18.48; per cubic foot, $1.56.

Foundations: First floor, reinforced concrete.

Structural system: Second floor and roof, structural steel and wood joists.

Exterior walls: Brick and spectra glaze, waylite block and Crab Orchard stone veneer.

Interior walls: Gyp block, cinder block, wood studs.

Wall surfacing: Spectra glaze block, ceramic tile, plaster, vinyl plastic.

Floor surfacing: Terrazzo, ceramic tile, maple hardwood, greaseproof asphalt tile and vinyl tile.

Ceiling surfacing: Acoustical tile and plaster.

Roof surfacing: Twenty-year bonded marble chip and tar.

Waterproofing and Damproofing: Troweled in "Dehydritine."

Insulation: Four-inch aluminum foil and fiberglass combustion batts.

Windows and entries: Aluminum sliding sash.

Doors: Thin line aluminum and glass, hollow metal interior doors and Kalemein self-closing fireproof doors.

Heating: Forced hot water, three zones with exterior and interior thermostatic controls.

Electrical: Four hundred ampere, 120/208 volts, three-phase, four-wire underground service with emergency generator; emergency entrance circuit; safety-type circuit panel board and circuit breakers.

ARCHITECTS AND ENGINEERS: Sirof, Rosenberg and Silvertsen, New York City.

MECHANICAL ENGINEERS: Irving M. Robbins, P.E.

GENERAL CONTRACTORS: Calsa Contracting Co.

HEATING AND VENTILATING: Child and Scott.

PLUMBING AND SANITARY: Magee Brothers.

ELECTRICAL: Wesley R. Simpson.

Fire Truck Runs Red Light; Driver Cleared By Court

On October 19, 1956, Thomas Whyte, driving a Fairless Hill Fire Co. truck, was arrested by Bristol, Pa., Township Police and charged with driving a fire truck through a red light.

Sergeant Bentley Chapin of the Town Police testified that Whyte drove the fire apparatus that passed a red signal on the Levittown Parkway. Whyte first slowed down to let two cars through the intersection, then crossed and collided with a dump truck.

On February 15, 1957, Judge Edward G. Biester threw the case out of Bucks County Court for lack of evidence.

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SHUT-OFF NOZZLE and PLAYPIPE
COMBINATION

The World's Finest

Fig. 156

F. N. McINTIRE BRASS WORKS
377 Putnam Ave., Cambridge 39, Mass.
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The Fireman's Choice
Powerful Light
When he needs it—where he needs it
Big Beam
PORTABLE ELECTRIC HAND LAMPS

Model 700-A 2000-foot beam

Most powerful, heavy-duty hand lamp of its size. Adjustable 6-inch head. Operates on four standard No. 6 dry cells.

Model 211 1500-foot beam

Popular price, light weight, easy to carry. Adjustable 5-inch head. Holds two standard 6-volt lantern batteries. Operates on one; other is a spare.

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High Frequency Radio Receiver
THE MODERN ALARM

- Buy a Fyrcall for each fireman. Send spoken alarm & instructions.
- Use present police or fire transmitter to send alarms.
- Receives only messages preceded by a tone. (1000 to 2000 cps available.)
- Reset switch returns receiver to silent standby.
- Crystal Controlled. At least 2 mile range without outside antenna.
- Low cost. Low power consumption. 6 tubes & rectifier. 27 Watts.

Please Write to
PLECTRON CORPORATION
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PIONEER
GEN-E-MOTOR
PORTABLE ELECTRIC POWER

Model BHA15L Lightweight 1800 Watt Unit on Skid

For floodlighting, radio, pumps, blowers, rescue apparatus . . . dependable emergency power *when and where you need it* with Pioneer, light weight portable generators. Pioneer generators require little space, are ruggedly constructed. Models **BHA-20L,** 2300 Watts, and **WHA-25L,** 2800 Watts, skid mounted as above for easy handling.

WRITE TODAY for new catalog and prices on 250 to 3600 watt units designed for Fire Department use.

PIONEER Gen-E-Motor Corporation
5832 West Dickens Ave., Chicago 39, Illinois

QUEBEC CONFLAGRATIONS

Continued from page 221

were frozen in the fire according to acting Police and Fire Chief Sergeant Antoine Boyer, who took over command later, nevertheless he had gone so close to the fire that his face was burned. Nine firemen released from the hospital after treatment, returned immediately to fight the fire.

Altogether, 141 persons of 33 families were made homeless. On January 1, two days later, the body of a woman was found under six feet of ice.

The fire was brought under control at about 11:30 a.m. at the rear of the buildings on the north side of Grande Isle Street, with the aid of a diminishing wind.

How industrial force aided

In a special report to FIRE ENGINEERING, R. A. Land, Maintenance Superintendent of the vast Montreal Cottons Ltd. plant, supplemented the foregoing account with these data details of his Security Department's actions.

Operating on the 30th and 31st of December, two 2½-inch hose lines of 1600 feet with 1½-inch nozzles were directed on the fire for some 24 hours, being fed by the company's water system. The City Fire Brigade also had one 2½-inch hose with 1⅛-inch nozzle on this system. On stand-by in the company's yard in the event the fire were to spread, was one 2½-inch line, 150 feet long. In addition to mill pumps which normally maintain pressure on the system, a 1,000-gpm (U. S.) fire pump was run for the duration.

A total of some 50 employees from the Security Department, Maintenance Department, regular mill fire brigade and volunteers, took part in this action. These men manned and patrolled hose lines, patrolled the company's property and surrounding properties, extinguished fires caused by flying roofing paper, and checked pumping equipment.

According to Mr. Lang, "the most striking thing about this fire was the cooperation between all concerned—civic authorities, fire fighters, relief agencies and citizens. The fact that our plant had an adequate fire fighting system played an important part in restricting the spread of the fire, especially at the early stages until the arrival of further pumping capacity."

Approximately 50 per cent of the plant's hose was in use at the fire, and because of the 15 degrees below zero temperature which prevailed during the blaze, it took another full day to extract hose from the ice and return it to service condition. At its peak effort, the plant still had some 5,000-gpm (U. S.) pumping capacity in reserve. □□

Acknowledgement: The editors gratefully acknowledge the assistance of Mr. D. M. Baird, Montreal, and Mr. R. A. Lang, Montreal Cottons Limited, in the preparation of this special report.

NEW!
Hydrant RATCHET WRENCH

4" SWING
OPENS ANY HYDRANT EASIER-FASTER

FIRE CHIEFS SAY:
"It's the fastest, most convenient Wrench ever devised" - "the short 4" swing is wonderful to get into hard-to-reach places." "Your new Ratchet Wrench has been a life saver on many occasions."

SIZES — 1½" — 1¾" — 2"
Each size adjustable down to 1" to fit all pentagons. Made in 16" and 20" handles. Also available in non-adjustable square and hexagon heads, please give exact size required.

16" and 20" Handles

ORDER TODAY
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P. O. BOX 921-B HOLYOKE, MASS.

END TANK RUST, STICKY VALVES

Dakota TANK SAVER
SOLVES YOUR FIRE TRUCK MAINTENANCE PROBLEMS

Positively prevents rust in booster tank, fire pump and water system. Lubricates valves and gates to prevent sticking, dissolves lime and corrosion deposits on gate and line valves. Deposits a fine film of rust-preventive oil on all metallic surfaces. Give it a try — we know you'll reorder!

Tested and used regularly by hundreds of fire depts.
One half gallon will treat 500-gallon tank, pump and gates
Single gallons $4.00
Case of 4 gallons $15.00
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Order direct or from your fire equipment dealer.
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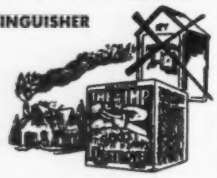
CHIMNEY FIRE EXTINGUISHER



Save rushing to chimney fires—avoid slippery roofs by using IMP Chimney Fire Extinguisher. Just throw a 65¢ package "as is" on the hottest part of the fire in the stove, furnace or fireplace. The chimney fire will be out in jigtime without water or chemical damage. Recommended by many chiefs who carry IMP in their cars. ALSO —LIQUID IMP for *oil fired units*, is as much a fire preventative as pkg. IMP. Saves oil, money, increases heat, prevents sludge, reduces carbon deposits and is safe. You know what a fire hazard sludge is. Use LIQUID IMP in your own burners. 3½ oz. enough for 90 gals. kerosene or 55 gals. No. 2 fuel oil; 16 oz. enough for 5 times above quantity; 1 gal. enough for 1600 gals. #2 fuel.

A fire prevented is worth more than a dozen extinguished!

USE THIS COUPON FOR YOUR ORDER

F. C. FOARD & CO., Box 481, Bridgeport 1, Conn.

Please send....doz. packages of IMP @ $7.80 per doz.
and/or .....doz. 3½ oz. Liquid IMP @ $9.00 per doz.
.....doz. pint Liquid IMP @ $27.00 per doz.
.....quarts Liquid IMP @ $4.10 per qt.
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I will honor your bill f.o.b. Bridgeport.

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FIRE EQUIPMENT DISTRIBUTORS ATTENTION!
Add package and Liquid IMP to your line.
Write TODAY for special distributor Plan.

THE WATCH DESK

overhauling the firemanic news of the day

Look—No Hands!

When the big 85-foot aerial ladder truck rolled out of Fire Headquarters in Stamford, Conn., on February 8, the apparatus turned the corner—that is the front part turned the corner. The back part didn't turn at all, and mowed down several highway stanchions.

As the result Fireman Joseph Rosa, driver of the aerial, and Rocco Buchetti, acting tillerman, were hauled before the Board of Public Safety on "neglect of duty" charges and were suspended from duty for three days.

Fire Chief Thomas Richardson reported that the acting tillerman forgot his assignment and climbed aboard his usual apparatus. As Driver Rosa turned the cab right, in the direction of Elm Street, the main portion of the apparatus continued straight out into the street. Another aerial answered the alarm, which turned out to be false.

"I've heard of things like this happening, but it's never occurred before in Stamford," Chief Richardson said following the incident. He related the situation as follows: The regular tillerman, Stanley Bienkowski, earlier requested and was granted special leave to visit a patient in a local hospital. Assigned to replace him was Buchetto, who was on watch when the bell hit at 7:23 p.m. When the alarm sounded, Rosa immediately went to the cab of the aerial, and Buchetto hopped on No. 1 Engine, forgetting that he had been detailed as tillerman. Rosa, a veteran driver, assumed that Buchetto was seated at the tillerman's wheel, and drove the apparatus to the call."

Rosa brought the big aerial 53 feet straight out from the station, before making the turn.

"He had no right to start the truck until receiving a signal from the tillerman," Chief Richardson said of Rosa. "As for Buchetto, he forgot he was to act as tillerman, and went on the apparatus he's always been assigned to." ***Tom Magner***

Hot Dig-gity!

Federal and Pennsylvania State Governments, with city authorities of Carbondale, Pennsylvania, will spend more than $2 million in a "big dig" excavation job to excavate an 120-acre area affected by an underground coal fire that has burned for 10 years.

The project may take as long as ten years to complete. Some 320 families will be relocated in "temporary" homes and about 357 dwellings will be torn down as the work progresses.

Plans call for attacking the fire from three directions at once. The average "cuts"—the area actually will be stripmined—will reach a depth of 90 feet and a width of 270 feet.

The first task is to contain the stubborn blaze and prevent its spreading across a line which borders the approaches to the downtown business district of Carbondale.

The fire, fed by rich coal deposits, originally affected only a 15-acre area. It originated in an abandoned strip mine on the west side of town in August 1946.

Inspectors maintain a 'round-the-clock check on gas concentrations in west side homes. Residents are forced to keep windows partly open even in winter, and they use circulating fans in cellars to prevent accumulations of deadly gas.

A portion of the cost of project will be paid off by an estimated $425,000 in royalties on coal unearthed in the course of the work.

Unusual Blast In Newark Hospital

On Friday, January 18, a fire extinguisher exploded in the diet kitchen of the Martland Medical Center in Newark, N. J. The blast demolished one side of a refrigerator, destroyed a dish closet, blew out windows and broke a steampipe. Fortunately no one was injured in the accident.

Acting Deputy Chief Nicholas Butterly said the explosion apparently occurred when a carbon dioxide extinguisher expanded from the heat of a nearby steam pipe.

Illegal Parking?

A Louisville, Ky., motorist recently "beat the rap" when ticketed for parking in front of a hydrant. His defense was that the pesky plug had parked by him. The judge checked on his story and found that the hydrant had been installed after the defendant's car was parked. Charge dismissed.

Hot Off the Tape

McKean Carter of Gorham, Kans., helped organize a drive to rid a farm area of crop-destroying jackrabbits. Some 20 nimrods took part—and found an unexpected use for the game they bagged. A backfire from Carter's truck started a grass fire. The hunters beat out the blaze —by swatting the flames with dead jackrabbits. Now you tell one! . . . Comes another animal tale, this'un from Charleston, W. Va., where a certain tomcat is missing his whiskers, his paws are burned and his fur is singed. But better eight lives than none. He prowled, by mistake, through a 1,200-degree glassware kiln. . . . "There's a jumper at 154 Ashburton Avenue" said a voice over the first alarm phone at Yonkers, N. Y., Fire Headquarters. Whereupon the Brothers went sireening to that address, ready with nets and everything to rescue the man who,

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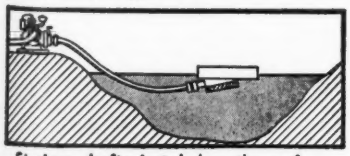

Strainer drafts just below the surface and down to the last few inches.

WRITE your distributor or manufacturer for brochure and prices. Specify hose size.

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neighbors believed, was ready to jump from a fourth-story window. They found Karl Kotash, 36, attempting to repair a rattling window. He had one leg out of the window and neighbors, squinting in the dim light, thought he was gonna jump. Cops told him he better repair windows in daylight. . . . In March, work will start on enlarging the Museum of the Firemen's Home at Hudson, New York, according to Daniel Mullin, trustee in the home and a director of the Westchester County Volunteer Firemen's Association. Mementos of early volunteer fire service, many irreplaceable and some priceless, are housed in the Museum building. The Home itself is one of the nation's finest of its kind. . . . In Detroit, Mich., for the first time in 85 years there are no members of the Henrion family on the Detroit Fire Department staff. The name passed from the rolls with the death of Alexander Henrion just nine days after he had retired from the force at the age of 64. . . . Orchids to Railford Pearson, address not known, who driving a trailer truck loaded with dynamite near Knoxville, Tenn., deliberately ditched his vehicle rather than chance hitting a school bus, when his brakes failed January 22 last. The truck overturned but did not explode. Pearson was unhurt. . . . All police records in the resort city of Asbury Park, N. J., were lost early January 21 when fire swept through the 80-year-old police headquarters. . . . We thought livery stable fires were passe, along with the hay mows and pitchforks, but in Washington, D. C., two policemen, trapped in a smoke-filled stable on January 27th refused to come out until firemen had cut a large enough opening in an 18-inch brick wall to save themselves and the horses—which they had attempted to save. . . . After firemen had doused a blaze in a milk plant near Seneca Falls, N. Y., they turned the hose on Fire Chief Norman Comiskey of the Waterloo, N. Y., Fire Department. Seems sparks had set fire to the cuff of his trousers. Wot —no booties? . . . In Houston, Tex., a showing of the Spanish film "Casa de Perdition" (House of Sin), got a bit too realistic for some 75 customers on January 23. They fled the Little Rib Theatre as smoke and flames poured out of the theater offices. Nobody hurt. . . . Near Kingston, N. Y., fire destroyed the administration building of the Society of Brothers, one of a dozen buildings on the large area. More than 100 children being cared for by the Order were unharmed. . . . Elmer C. Lucas and Theodore Pravda, accused of starting eight church fires in Trenton, N. J., during the past year, have been declared mentally ill after examination at Trenton State Hospital. . . . Asa Barnes, 64 a volunteer fireman of Ossining, N. Y., collapsed and died apparently from natural causes, according to the press, at a fire in a four-family house. . . . An 87-year-old retired clergyman died of burns in Jamestown, N. Y., when his bed caught fire. Firemen said the Rev. John Eckman apparently tried to light a match when the entire pack caught fire and dropped into the blankets of his bed in the Lutheran home for the Aged.

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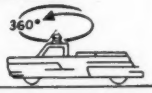

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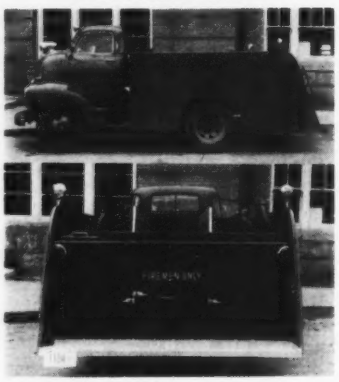

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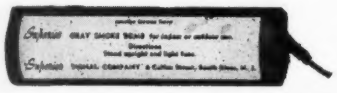

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Obituaries

Colonel Brayton Dies Suddenly

Colonel Harold R. Brayton, Coordinator of Survival Research and Planning for the State of Texas, College Station, Texas, died suddenly on the evening of January 10, 1957, aboard a plane while en route from Houston, to Austin.

Prior to entering the Armed Forces at the start of World War II, Professor Brayton instructed in chemistry at Texas A & M. In the service, starting with the rank of major, he was promoted to lieutenant colonel. He is widely remembered for his training work at the Chemical Warfare School, Edgewood Arsenal.

Colonel Brayton found time from his many other duties to take an active interest in civilian defense, appearing before numerous fire service groups and conducting field demonstrations—many of them of spectacular nature.

He attended the Fire Department Instructors Conference from its beginning and played a stellar role in its programs. His "This is Station FDIC Broadcasting" was one of the concluding features of the Conference programs.

Colonel Brayton gave up active teaching at Texas A & M about 1955 to become State Coordinator of Survival Research & Planning.

Division Chief William J. Boland

William J. Boland,. 58, Chief of the North Division, Buffalo, N. Y., Fire Department, collapsed and died while fighting a fire in the Buffalo Air Force Reserve Center on January 6, 1957. A veteran of 34 years on the Buffalo department, Chief Boland was appointed division chief in 1954.

Former Chief Fred Huston

Fred Huston, 47, former fire chief of the Fort Thomas Military Fire Department was killed Wednesday, January 9, in an oil well explosion at Logan, Ohio. He was superintendent of the Kentucky, Ohio and Indiana plants of the Rural Doxol Gas Co. He was also a member of the Ludlow, Ky., Fire Department.

January Fire Losses

Estimated fire losses in the United States during January amounted to $115,-272,000, the National Board of Fire Underwriters has reported.

According to Lewis A. , Vincent NBFU's general manager, this $115,-272,000 represents an increase of 18.9 per cent over losses of $96,972,000 reported for January 1956, and an increase of 19.5 per cent over losses of $96,485,-000 for last December.

These estimated losses include an allowance for uninsured and unreported losses.

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Hose should ALWAYS be washed after using, then dried with proper hose conditioning equipment.

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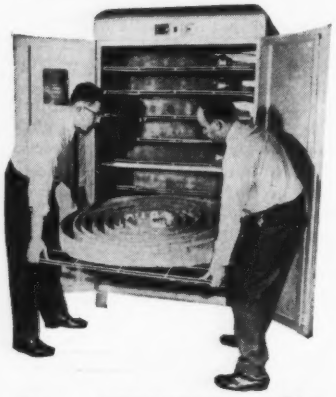

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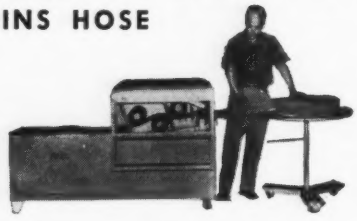
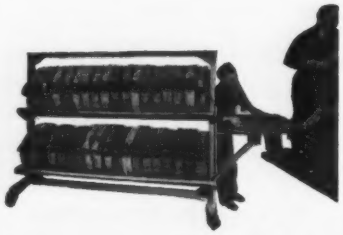


PORTA-RAK HOSE STORAGE and LOADING UNIT



Saves valuable space. Holds 1800 ft. of 2½" hose—proportionately more of 1½"—in an 8 ft. space (when loading table is detached). Roll it right up to the truck for complete hose reload—out of the way when not in use. Equipped with locking fiber wheeled casters.

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